the merican er mer and ESSENTIAL OIL REVIEW

COSMETICS - SOAPS - FLAVORS

J. H. Moore President HARLAND J. WRIGHT Vice President and Editor

ROBIN FOWLER
Managing Editor

Maison G. deNavarre, Ph.C., B.S. Technical Editor

SHIRLEY BERG Assistant Editor MORRIS B. JACOBS, Ph.D.

WILLIAM LAMBERT Business Manager

CONTENTS : MARCH 1948

Cedar Species: Their Geographic Distribution and Uses Samuel Klein	242
Cosmetic Trends in the Mid-West Jean Mowat	246
Packaging Portfolio	248
Esterification with Acid Anhydrides and Acid Chlorides Dr. Kurt Kulka	251
Imitation Maple Sirup Dr. Morris B. Jacobs	256
Trends in the Detergent Field Dr. Anthony M. Schwartz	261

REGULAR FEATURES

Desiderata-Maison G. deNavarre	239
Questions and Answers	241
Washington Panorama	269
New Products and Processes	272
Harold Hutchins Says	273
The Round Table	281
Market Report	293
Prices in the New York Market	295

PACIFIC COAST REPRESENTATIVE: NED BRYDONE-JACK, 714 West Olympic Blvd., Los Angeles 15, California . . . Western Office, Room 1328 Peoples Gas Bldg., Chicago 3, Ill.

SUBSCRIPTION RATES: U.S.A. and Possessions and Canada, \$3.00 one year; 30 cents per copy. Foreign, \$5.00 one year. Entered as second class matter, December 29, 1938, at the Post Office at Philadelphia, Pa., under act of March 3, 1879. Application pending transfer to the Worcester, Mass., Post Office as second class matter. Published monthly by Moore-Robbins Publishing Company, Inc. Publication Office: 44 Portland St., Worcester, Mass., U.S.A. Editorial and Executive Offices: 9 East 38th St., New York 16, N.Y. J. H. MOORE, President; F. C. KENDALL, Vice President and Editorial Director; J. H. MOORE, Jr., Secretary and Treasurer; HARLAND J. WRIGHT, Vice President and General Manager; MARC MACCOLLUM, Vice President; R. R. ROUNTREE, Circulation Director.

Moore-Robbins Publishing Company, Inc., is publisher also of Advertising & Selling, American Printer, Drycleaning Industries, Gas Age, Gas Appliance Merchandising, Industrial Gas, LP-Gas, Laundry Age, Laundryman.



Cable Address: Robinpub, New York
Volume 51, Number 3 (Copyright 1948, Moore-Robbins Publishing
Company, Inc.)



Editorial Comment

Publishing Troubles

As some of the readers of THE AMERICAN PERFUMER may know, the typographers in Philadelphia are out on strike. When the strike came, it found a considerable portion of this publication in the plant of our printer. We couldn't do anything about the work that had already been done on the March issue; but we could get our original material out. And this is what we did. There was no one to show us where to look. We were only asked not to disturb copy belonging to other publications. We found parts of this magazine all over the plant. One rather long article was on a linotype machine, half set. We found it all in a comparatively short time. And we were lucky. One man had been there three days and was still look-

You will find this to be an abbreviated version of THE AMERICAN PERFUMER. It is set in different body type from that to which you are accustomed, and the headings are strange. The layout has been simplified to the ultimate degree. Some articles which had been scheduled have been held over because they contained complicated formulae and long tables. But by so doing we have been able to print this issue. That is our function as publishers. Please be patient with us. We will soon be able to bring you the carefully laid-out magazine which you

have every right to expect.

Fat Salvage Campaign

Roy W. Peet, chairman of the American Fat Salvage Committee has reported to the Association of American Soap & Glycerine Producers, Inc., that used fat collections, from the inception of the program in August 1942, have resulted in the recovery of 847,321,000 pounds at an average cost of less than one cent per pound.

A total of \$7,035,418 has been spent in newspaper advertising during the period reported. In addition, the program has received an estimated \$10,000,000 of radio time,

and 287,237 clippings.

DECORATIVE STOPPER (Patented) formed of siny, colored sea shells delicately shaped into form of a flower.

"THREAD-LOK" stopper-applicator, exclusive with Glass Industries, prevents leakage and evaporation. (Patented)

FLORAL DECORATION hand applied and deftly executed. adds beauty and distinction.

Imerica's finest Miniature



In perfume sales, women's eyes are on the package. Often the same perfume has a broader appeal, sells faster when packaged in small, distinctive containers. In your line, why not follow this modern trend by using miniature perfume bottles by G. I. I. Hand blown and ranging in size from 1 dram and 1/4 oz. to 1/2 oz., they give eye appeal and memory value that bring high volume sales. Write for catalogue today.

PATENTED SCREW STOPPER . . .

All Vials and Miniatures feature our exclusive, patented leak-proof, air-tight stopper-applicator.





INTERCHANGEABLE SCREW-STOPPERS

sizes available. This our patented, ex-usive leak-proof, airtight stopper-applica-tor. They can be had in assorted colors, also "metallized" with gold or silver finish.



BOUQUET FLORAL STOPPERS (Patented)

Made of tiny hand-painted shells in beau-tiful pastel shades as shown above. Fit any style bottles.



G.I.I. FUNNELS

These tiny funnels, available in crystal or colored glass, can actually be used for filling our vials and miniatures.

DESIGNERS 10 West 33rd Street



MANUFACTURERS New York I, N. Y.

To Our Readers

A work-stoppage at the Chilton Press in Philadelphia makes it impossible to continue to print there this and other magazines published by the Moore-Robbins Publishing Company.

Accordingly, these magazines will be printed henceforth at the Hildreth Press in Brattleboro, Vermont. This will be a difficult transition period for us during which issues may be late, editorial content decreased, and appearance affected.

I am confident our readers will be lenient with such shortcomings during this temporary emergency period.

J. H. MOORE, PRESIDENT
MOORE-ROBBINS PUBLISHING CO., INC.



Rew land SHEFFIELD PROCESS

DESERVED

Here's another outstanding example of New England TUBES. It's significant that the leading manufacturer of cosmetics for glamorous eyes specifies these finer Collapsible Tubes. For, they are as popular with the consumer as they are with the manufacturer. Consumers prefer these ideal containers because they are easy to carry and keep.. no danger of messy breakage or spilling; handy to pack in travelling bag or hand bag. And the manufacturer likes their light weight which brings economies in shipping. their sturdiness which minimizes returned goods losses. When you buy Tubes, be sure to specify New England (Sbeffield Process) Collapsible Tubes. You'll prefer their pliable extra strength, their fine uniform quality, and the craftsmanship which assures outstanding tube decoration. Ask our nearest office today for prices, samples, suggestions. No

today for prices, samples, suggestions. No obligation, of course.

● If your tube filling facilities are inadequate, ship us your halk product. We'll package it for you in tubes, jars, or tims, ready for distribution. This is only ONE of the EXTRA services available at NEW ENGLAND!

NEW ENGLAND COLLAPSIBLE TUBE

3132 S. CANAL ST., CHICAGO 16 • NEW LONDON, CONN. • W. K. SHEFFIELD, V. P., 500 FIFTH AVE., NEW YORK 18
T. C. SHEFFIELD, 7024 MELROSE AVE., LOS ANGELES 38 • C. W. MILLER, 151 COLE 5T., SAN FRANCISCO 17
EXPORT DEPT: 500 FIFTH AVE., NEW YORK 18, CABLE "DENTIFRICE", NEW YORK

Desiderata by MAISON G. DENAVARRE



M. G. DeNavarre at work in his laboratory

NAVES vs RUZICKA

Everyone recalls the episode relating to jasmone, which took place about ten years or so ago, in which each of two scientists claimed to have made the first chemical synthesis of jasmone. To-day, Naves and Ruzicka are in the midst of a contest as to who first synthesized imne.

Without arguing the scientific or legal merits of the case, one cannot help but see it from the American point of view, namely, if you believe you have produced an invention, then why not get a patent on it? It is better than secrecy, as so many Americans have found out to their dismay. In the case in question Naves described his discovery and deposited under seal in care of the Swiss Chemical Society. Ruzicka reported his discovery in the October 1947 Helvitica Chimica Acta.

So, two fine scientists, each famous in the realm of the chemistry of aromatic compounds, find themselves contesting each other's claims to priority.

LANOLIN DISTILLATE

It is now claimed that a new lanolin derivative is being produced commercially by the distillation of lanolin, consisting largely of the liquid esters. The ester value is 99 plus, saponification value 125 to 150, iodine value 25 to 35. The product is not particularly rich in cholesterol but it endows, a cosmetic with many desirable properties of lanolin such as counteracting the drying effect of bromo acid in lipstick, aids in spreading of lipstick resulting in a thin uniform film. It

forms soft water in oil emulsions. A special form is soluble in mineral oil. Both are thick viscous oils.

FRENCH OIL & FAT JOURNAL

Many will recall the well known French journal "Bulletin des Matieres Grasses" founded in 1917 by the Institute Colonialle Marseille. This journal has been discontinued and now appears merged with another under the name of OLEA-GINEUX (I.R.H.O.). The new journal is sponsored by three different organizations, and its publication encompasses a much wider scope. Subscription outside of France is 1,500 francs. Fats, oils, and their derivatives such as synthetic detergents, are all covered by the new publication. It is somewhat similar to Journal of the American Oil Chemists Society (formerly called Oil & Soap), but it reflects French oil and fat technology in particular. This writer considers it a worthwhile addition to your li-

HOME PERMANENT WAVES

Whether we like it or not, home permanent waving appears here to stay. In fact, there are some advantages to home waving over shop waving. Thus if a woman has a weak curl and wants a couple of curls on each side of her head, she can do them at home without losing much time, and still look pretty good for the "big night." Women who couldn't afford a permanent wave, can have them now for as little as a dollar if they use part of the solution and curlers.

Many have had doubts in their

minds regarding the safety of cold waving solutions as a group, particularly when used by the careless housewife or office girl. All sorts of complications were conjured up in these minds. And not without cause, for thioglycollates have proven themselves to be active sensitizers when used regularly by beauty operators. (Note new labelling requirements for Professional cold wave packages.) Somehow, the damage to the consumer has not manifested itself as was thought. Maybe it is there but doesn't show up because it is an established fact that the average consumer, if irritated by a product-either mentally or physically-simply throws it out and chalks the cost up to experience, never buying that brand again. In any event it seems to be raising the dickens with the beauty shop business. So much so, that another state, Kentucky, has before its legislature a bill to prohibit the sale of home permanent waves. Previous legislation elsewhere has not fared so well. Remember legislation to prevent the sale of estrogen creams? It didn't do so well either.

BRITISH EQUIPMENT

One cannot overlook certain advantages some of the British machinery seem to possess. There are single spout vacuum fillers all the way up to a dozen spouts. Mixing or emulsifying machinery of certain types seems to be more capable of doing the job than ours. A lot of

mer



The striking beauty of Opticlear Vials enhances the appearance of all types of "dry" products.

Classic Beauty in vial design with the new positive re-seal

· Here is lustrous, flawless glass in the desirable "ethical" shape, plus a distinctive new translucent stopper... combined in an eye-catching container which assures flattering display and ready acceptance of your product.

Here is maximum utility! The straight sides and wide neck simplify

filling. The smooth fit of the stopper allows removing and replacing in two easy movements.

Here is the tightest seal against moisture penetration Kimble has ever developed! Even after removing and replacing the resilient stopper many times, its re-sealing ability is so nearly perfect that there is no trace of moisture penetration to the most absorbent of tablets or powders.

You'll want to examine and test Opticlear Vials with your own products. We'll be glad to send you a sample set. Please mention type of product and sizes of vials needed.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO

Division of Owens-Illinois Glass Company



the equipment is ideal for small and moderate scale manufacture, whereas there is so little equipment here for small scale manufacture unless it is made specially, and then at a fabulous cost.

LOVIBOND GLASSES

The Lovibond Tintometer is standard color matching equipment in many laboratories. All these will be glad to learn that discs and triangles are again available, one size of each. They can be standardized by the National Bureau of Standards for a fee.

UREA IN ANTIPERSPIRANTS

Some are under the impression they can use urea as a "buffer" in view of a Federal Court decision rendered several years ago in an Eastern Court. Another decision elsewhere rendered, however, is opposite to this. That throws the whole thing on a fifty-fifty yes-andno basis. No one knows what is what, except that unless you were the litigant in the Eastern court case, you stand an excellent chance to be sued for infringement if you use urea in an antiperspirant containing aluminum chloride or sulfate

Besides, why use it? Urea slowly hydrolyzes to ammonium bicarbonate or carbonate or both, which slowly reacts forming carbon dioxide gas—resulting in a spongy mass —and ammonium alum which is poorly soluble, resulting in crystallization within the mass. With sulfates in high acidic concentrations as in aluminum sulfate solutions, one cannot overlook the *possibility* of forming a sulfanate which is also poorly soluble in water.

So, for one reason or another, don't use urea. If you can't get a buffer of your own, a good starting point is to use the recently introduced compound aluminum chlorhydrate, sold under a trade name. It is an active antiperspirant, slower to manifest its action than more acid aluminum salts, but less corrosive to cloth than either aluminum chloride or sulfate. In addition, it tends to crystallize out less so than some aluminum salts. It is very water soluble.

NON-IONIC SOAP BAR

According to available information, one supplier of non-ionic surface active agents has developed a combination that can be put up in bar form. A promoter for the idea is sought among the soap or cosmetic trade, since the supplier is not sure he is interested in going into the bar soap field at this time, it seems. At least one surface active agent in bar form is being sold in certain towns to determine the soundness of the idea. Here is a chance to get in on the ground floor.

built around Rohm and Haas "Triton." Have you such a formula or have you worked with them? We have their formula for a cream shampoo but when we try to thicken it we run into difficulties. Enclosed envelope is for your answer.

S. B. T.-WISCONSIN

A: of the Tritons, Triton X-200 makes a very interesting liquid cream shampoo. Current material is of extremely high quality and very useful. Up until recently, this product was not supplied in the same quality as prewar material. From our experimental work, it is practically impossible to produce a paste shampoo from Triton X-200 although the addition of 2 to 5 per cent of higher molecular weight aliphatic alcohols like myristyl, renders the liquid exceedingly heavy, almost thick enough for use as a cream shampoo in tubes.

ANTIPERSPIRANT CREAM

Q: We wish to thank you for your courteous assistance recently on our packaging problem. We are now taking the liberty of requesting advice once more on another problem. We are experiencing difficulty in inhibiting the formation of salt crystals in our antiperspirant cream. Any suggestions you may offer to obviate this condition will be greatly appreciated. If it is of any value to you in aiding us, following is our formula. (Formula given.)

T. N.-NEW YORK

A: Analyzing your formula discloses that it contains only 5 per cent of polyol to prevent evaporation. As you know most polyol at best will retain only their own weight of water. In addition this is a vanishing cream with a high water content. It contains a substantial amount of crystallizable electrolyte. As the water evaporates from the surface of the cream, crystals are formed, a condition that has plagued all manufacturers of antiperspirants. Have you tried subtituting aluminum chlorhydrate in place of aluminum sulfate? This material tends to crystalize to a lesser extent than does aluminum sulfate when in solution. The supplier's name goes to you under separate cover.

QUESTIONS AND ANSWERS

HAND LOTION

mois-

rbent

d test

prod-

sam-

oduct

LITY

Q: I would appreciate if you could furnish me with a good inexpensive formula for a hand lotion with lanolin as one constituent. The lotion preferably would be the consistency of say, a lotion like Jergen's lotion.

N. S.-PENNSYLVANIA

A: We do not know the composition of Jergen's Lotion, but the following formula will give you a very serviceable product which you can adjust to your own needs.

(a) {	Stearic Acid (triple pressed)	0.5 per cent
	tan Monostearate .	2.5 per cent

 $\label{eq:basic_problem} \text{(b)} \left\{ \begin{array}{ll} \text{Water} & ... & .89.5 \text{ per cent} \\ \text{Preservative} & ... & q.s. \\ \text{Perfume} & ... & q.s. \end{array} \right.$

Add (a) at 90 deg. C. to (b) at 95 deg. C. Stir rapidly to 30 deg. C. Perfume at 50 deg. C.

CREAM SHAMPOO

Q: From time to time I note formulae for paste shampoos, but none

Cedar Species:

THEIR GEOGRAPHIC DISTRIBUTION AND USES

SAMUEL KLEIN

NATURAL cedrene, the principal constituent and important in the bouquet of cedarwood oil, is a mixture of the alpha and beta forms associated with similarly constituted bicyclic sesquiterpenes. Some interesting oxidation derivatives of cedrene prepared under varied reaction conditions have received mention in the literature. The major ones are

al a Classification Appearance and Odor Ketone liquid possibly strongly odorous Sesquiterpene liquid, polymerizes rapidly to powder; odorless Ketone liquid, intense cedar odor

The chemistry and structural formulæ of the above constituents and derivatives, as discussed in the literature are frankly tentative, not established. This phase of the subject is in fact, much more complex than would appear at first glance. The bulk of the experimental data on cedrene, for example, which has received the major attention, has been collected by Treibs, 25, 26, 27 Ruzicka and coworkers^{28, 29, 30} and reviewed by Naves

membered ring is in fact, similar to the structure of vetivone. The tentative configuration of alpha-cedrene proposed by Naves and his group is an attempt to reconcile all the observed reaction studies and behavior of cedrene, and amounts to a derivative of gaïazulene, a dimethyl 2,8-endo-iso propylidene-2,5 octahydro-1,2, 3,4,5,6,7,10-azulene, or a dimethyl-2,8-endoiso propylidene-2, 5-bicyclo (0,3,5) decene-(8). It is noteworthy that S-gaïazulene has been identified in zdravets oil.31

Dr. Arthur Behr, Director of Research of the Aromatics division of the Dow Chemical Co. and probably America's foremost authority on the chemistry of Cedarwood oil, is of the opinion that the tentative formula proposed by Naves and coworkers, while not proven conclusively, seems quite satisfactory and thus far has not been contradicted by any observations.

CONSTITUENTS RESPONSIBLE FOR ODOR

The distinctive odor of cedarwood oil has been generally attributed to cedrol. This, however, cannot be reconciled with the fact that natural cedarwood oil containing no cedrol is by no means uncommon. Fur-

Treibs' Formula

Ruzicka's Formula

Naves' Formula

and his colleagues.22 Their proposed formulas are listed

The latter believe that the reactive ring is 5-membered in accordance with a recent suggestion of Treibs. This structure of a 5-membered ring attached to a 7thermore, cedrol purified by repeated recrystallization from dilute alcohol, using method described by Rabak,32 yields a white crystalline odorless material. Cedrenol may be odorless in pure form. A crystalline material, which the author examined, and which was certified to be cedrenol, had only a mild odor, possibly due to associated materials. Cedrene, which is the major constituent, has a distinct cedar odor. Pseudo-cedrol, has a strong camphoric-cedar odor. Its olfactory intensity or "brightness" is approximately twice that of cedar-

Synfleur Scientific Laboratories Inc., Monticello, N. Y., Lecturer at New York University

The writer expresses his appreciation to Dr. Arthur Behr of Dow Chemical Co., Aromatics Division, Midland, Michigan, and to Philip Chaleyer of Philip Chaleyer Inc., N. Y., for reviewing a draft of this article and for their valuable suggestions. valuable suggestions.
This article is continued from the February issue of The American Perfumers.

wood oil from J. mexicana. Furthermore, while not mentioned in the literature, powerful odorarts are likely present in small amounts. These materials are probably ketonic, with possible aldehydes and esters contributing to the complete cedarwood oil bouquet. A mixture of the listed constituents does not, by any means, give the entire cedarwood oil odor complex.

OIL DERIVED FROM J. MEXICANA AND J. VIRGINIANA

SES

are of

drene

pt to

navior

ulene,

ro-1,2,

opyli-

orthy

Aro-

bably

Cedar-

rmula

roven

s far

1 gen-

ot be

od oil

. Fur-

ation

Ra-

l. Ce-

alline

1 was

ssibly

najor

edrol,

nten-

edar-

umer

Threshold: Progressive dilution of one gram of each oil in alcohol to the point of odor disappearance gave the following results. 0.02 gram of 0.05 per cent solution of cedarwood oil from J. virginiana and 0.0168 gram of 0.02 per cent solution of the oil from J. mexicana were the smallest identifiable quantities, when using blotters at 20 deg. C. The test was conducted by two subjects on two successive days and averaged. The threshold of odor perception of the latter was therefore, three times that of the former. The actual weight relationship was 0.00000336 gram of 3.36 x 10⁻⁶ gm. for the mexicana oil against 0.00001 gram or 1 x 10⁻⁵ gm. for the virginiana oil

Strength: Cedarwood oil derived from J. mexicana averaged 60–75 per cent greater strength when judged from freshly impregnated blotter strips. The strips were moistened with 1 drop of 1,3,5,7.5 and 10 per cent alcoholic solutions of each oil. The tests were conducted against a blank of the alcohol diluent and at 20 deg. C.

Persistence: Cedarwood oil from J. mexicana proved more persistent. Blotters impregnated with two drops of this oil retained a distinctive cedar character for two months and longer, while blotters impregnated with an equal amount of cedarwood oil from J. virginiana were indistinct at the end of one week.

Bouquet: The oil derived from J. mexicana has a more dominant cedarwood odor, with a soft tarry note and a camphoric nuance which adds piquancy to the bouquet. The odor has somewhat the freshness of rosemary oil, French, and in the background an earthy, labdanum-like shading is noted. On the other hand, the oil derived from J. virginiana has a distinct and rather unpleasant fatty odor recalling castor bean, with a side note reminiscent of freshly shelled peas, or the inner green layer of young bark, in addition to a pencillike cedar odor.

Quality: Cedarwood oil from J. mexicana has a "brighter" and more rounded bouquet with higher pitch than the oil derived from J. virginiana. A group of representative perfumers who examined samples of both oils, were in unanimous agreement that the new oil from J. mexicana had a richer and more cedar-like odor than the usual type of cedarwood oil.

USES OF CEDARWOOD OIL

The soft odor of this oil makes it a useful aromatic raw material. It is valued as a spreader and background in low cost oils designed for use in soap, paradichlor-benzene, sanitary supplies, such as disinfectants, sweeping compounds, furniture and other polishes, 33 industrial masks as in wall paper, and so on. Under proper conditions cedarwood oil has insecticidal value, however, it has been shown that it is not as previously reported a moth repellent. 34, 33 Cedarwood oil has been

patented for processing during manufacture into paper garment bags,³⁶ and in plaster compositions.³⁷ It is useful for clearing permanent microscopic mounts, and its high refraction and transparency make certain fractions useful in connection with oil immersion microscopy.³⁸

Cedarwood oil from J. mexicana was incorporated into a number of formulas for perfuming various products, with the view of judging its usefulness. For example 1 per cent of this combination was sufficient to soften the harsh odor of paradichlorbenzene, without leaving a sticky residue on evaporation.

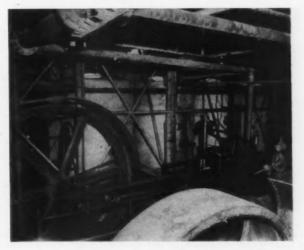
cet	al		. ,		 ,		5.0
		41	. ,				5.0
				. ,			30.0
						-	100.0
			 		 	 	eetala

The following gave a good cover in a petroleum derivative furniture polish:

Iso-cyclo citral-S (Dow)	. 0.5
Cyclamen aldehyde	
Lavender, French	
Rosemary, French	. 5.0
Amyl salicylate	. 6.5
Petitgrain, redistilled	. 18.0
Cedarwood oil, from J. mexicana bleached	

100.0

Before preparing soap perfume formulations it was thought advisable to conduct some basic tests. Two groups of ten gram soap cake samples containing 2 per cent by weight of cedarwood oil from J. virginiana, cedar terpenes and commercial cedrol from this source, as well as cedarwood oil from J. mexicana, redistilled oil, pseudo-cedrol and recrystallized cedrol from this source were prepared. One group was exposed on an open shelf, the other was sealed in separate glassine envelopes. For reference, soap sample blanks were prepared in both groups. During two months of observation, none of the prepared soap samples developed off-odor or discoloration. The soap samples containing



Steam engine supplies power

cedarwood oil were shaded however, by the inherent color of the natural material.

All exposed samples retained a cedar odor at two-week exposure, at this point the soap cake containing recrystallized cedrol was weakest in odor. At one month there was a definite fading of odor in all samples, with the one containing pseudo-cedrol most odorous of all; next in point of strength contained cedarwood oil from J. mexicana. The weakest odor was observed in samples containing cedar terpenes, cedarwood oil from J. virginiana, and recrystallized cedrol. At the two-month mark, the cedar odor of all exposed samples was obscured by the natural soap odor. When the samples were shaved to a depth of about 1/16 of an inch, the characteristic odor of each reappeared, demonstrating that the odor loss was due to volatilization of the odorant in the surface layer.

ODORS RETAINED

When the series of wrapped soap samples were opened at the two-month point, it was found that all fully retained their particular odor. The one containing the virginiana oil had a fatty odor recalling amyris together with a "green" odor somewhat like that of freshly shelled peas. The samples containing cedrol and cedar terpenes from J. virginiana had similar but weaker odors. The one containing the J. mexicana oil gave forth a strong cedar bouquet, with a trace of a fresh "green" note. The pseudo-cedrol sample had an even stronger cedar odor with camphoric toning. The sample containing recrystallized cedrol had a mushroom characteristic with no trace of cedar. The one containing a redistilled cedarwood oil from J. mexicana had a mild cedarwood odor. In short, pseudo-cedrol developed greatest strength with a bleached natural cedarwood oil derived from J. mexicana next in line.

These results demonstrated excellent reasons for the use of this oil in soap perfuming, a number of simple formulations were, therefore, attempted. It was observed that it is possible to effectively use from 30–50 per cent of this cedarwood oil. However, some odor types for example, violet developed off-odor on the addition of even small amounts of the material. Thus showing clearly that the oil has good odor value and should be

used in proper formulations only to permit substantial dosage.

SOAP PERFUME FORMULATIONS

All of the soap perfume formulations which follow were incorporated into soap base, and gave good basic results. The following formula resulted in a spicy bounquet:

Diphenyl oxide	,	į.	÷				÷		į.	ļ,							÷			×	×	r	1.0
Methyl anthranilate			k	<u>,</u>	'n					ı						×		×		ě		-	2.0
Amyl salicylate																							
Ylang-ylang Nossi-be																							
Eugenol																							
Geraniol-S for soap .						*	*	*							×				ż	i			14.0
Ionone AB brut																							
Phenylethyl alcohol												*				*			×	*			25.0
Cedarwood oil, ex. J.	1	n	le	X	i	C	aı	n	a	I	0	le	a	C	h	e	d	1					30.0

A powerful jasmin bouquet was developed along the following lines:

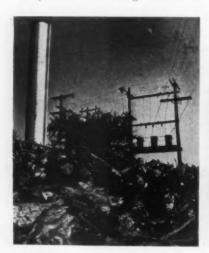
Civet Special, No. 392 (Synthetic)	0.5
Undecalactone	
Hydratropic aldehyde dimethyl acetal	
Hexyl cinnamic aldehyde	
Petitgrain, S. A	
Amyl cinnamic aldehyde	
Benzyl acetate	
Cedarwood oil ex. J. mexicana bleached	43.5
	100.0

A rose perfume for soap was composed as shown

rose pertune for soap was composed as snown:	
Cyclamen aldehyde 0.	j
Diphenyl oxide 2	0
Phenylacetaldehyde dimethyl acetal 2.	0
Nonyl alcohol 2.	0
Benzyl acetate	0
Geraniol-S for soap	j
Phenylethyl alcohol 40.	
Cedarwood oil ex. J. mexicana bleached 30.	

100

100.0



Cedarwood stumps at the mill



Feeding the wood into the plant

A full-bodied cologne suitable for soap was developed from the following materials:

Ionone AB, brut					*	×			к.	×		'n									2.0
Citral		*	×	×			×		×	8	×	×	6	×	*				,		3.0
Methyl anthranilate			*								,		,		×		é				4.0
Lavender, French																					
Musk ambrette																					
Coumarin																					
Cyclamen aldehyde .								*				х.					×	k	è.		10.0
Petitgrain, redistilled																					
Cedarwood oil, ex. J.	n	16	2	i	C	a	n	a	1	b	le	a	C	h	le	d	l	×			40.0
																				-	100.0

An interesting fruity odor was built thus:

0.5
e 2.0
onate 5.5
9.0
10.0
ntica 10.0
23.0
exicana bleached 40.0
100.0
_

All of the above perfume formulas for soap were used in 1 per cent proportion by weight in the writer's experiments.

CONCLUSION

stantial

follow d basic cy bou-

> 1.0 2.0 3.0

30

7.0 14.0 . . 15.0

. 25.0 . 30.0 100.0 ong the

> 0.5 1.0 2.0 30

5.0

. 10.0 . 35.0

. 43.5

100.0

0.5

2.0

20

. 10.0

. 18.5

40.0

. 30.0

100.0

fumer

m:

Cedarwood oil ex. J. mexicana is a valuable raw material from a comparatively new source. Its odor qualities differ from the oil obtained ex. J. virginiana mainly in degree. The mexicana oil having greater odor value is thus less of a spreader and more of an active odor bearer and background aromatic. The wide distribution of J. mexicana, not only in Texas but also throughout Mexico to Guatemala, together with its natural propagation give assurance of adequate raw material for an indefinite period.

It appears likely that this recent American essential oil will find increasing application in perfumery. This may be the encouragement required to spark efforts towards production of other essential oils derived from botanicals common in the Southwest, Central America and the Caribbean area. Here exist conditions naturally favorable to the agricultural production and derivation of essential oils; namely, proper climate, rich black soil, easy transportation and adequate availability of suitable labor. The universities in California, Texas and Florida are alert to the technical needs and are presently engaged in an attempt to furnish trained technical personnel for this and numerous other agricultural and chemical industries that have recently been established in this part of the country.39

U. S. Agriculture Dept., Miscell. Pub. No. 287, E. N. Munns (1938).

American Furniture Journal, p. 32, Sept. (1914).

Bu University of Texas Bulletin No. 22, T. M. Lewis (1915).

E. Guenther, Soap, 19, No. 5, 109 (1943).

B. Huddle, Ind. Eng. Chem., 28, 18–21 (1936).

Smell and Snell, Chemicals of Commerce, p. 421, van Nostrand, N. Y.

neister and Hoffmann, The Volatile Oils, 2nd Ed. V.1, J. Wiley,

M. Gildemeister and Hoffmann, The Volatile Oils, 2nd Ed. V.1, J. Wuey, N. Y. (1916).

BY OM. Carl Pool, general manager of the Southwest Cedar Oil Company, San Antonio, Texas, the writer expresses sincere thanks for data supplied on history of the cedarwood oil industry in Texas, description of locale, production, and constants of the oil extracted from J. mexicana.

N. Windemutch, Pharmaceutical Archives, Vol. 76, No. 2 (1945).

A. L. Daniels, D&F Essential Oil Co., Junction, Texas.

FRabak, Prod. of Volatile Oils & Perfumery Plants in the U. S., U. S. Dept. of Agric. Bulletin No. 195 (191).

Solubility in 90 per cent alcohol and optical rotations of cedarwood oils derived from J. mexicana were conducted in the chemical laboratories of New York University, by J. Davis.

A. Blumann, W. Hellriegel and L. Schulz, Ber. 62B, 1697–1700 (1929).

A. Blumann and L. Schulz, Ber. 64B, 1540–5 (1931).

Y. R. Naves, G. Papazian and E. Perrottet, Helv. Chim. Acta 26, 302–37 (1943).

** A. Brimann and L. Schall, Perrottet, Helv. Chim. Acta 26, 302–37 (1943).

*** W. Treibs, Ber. 70B, 2060–6 (1937).

*** W. Treibs, Ber. 68B, 1041–49 (1935).

*** W. Treibs, Ber. 68B, 1041–49 (1935).

*** W. Treibs, Ber. 70B, 2060–6 (1937).

*** W. Treibs, Ber. 70B, 2060–6 (1937).

*** W. Treibs, Ber. 70B, 2060–6 (1937).

*** Ruzicka, Plattner, Kusserow, Helv. Chim. Acta 25, 85–95 (1942).

*** Ruzicka and Jutassy, Helv. Chim. Acta 19, 322–5 (1936).

*** A. St. Pfau and P. Plattner, Helv. Chim. Acta, 19, 863 (1936).

*** F. Rabak, Amer. Perf. 23, 727–8 (1929).

*** Economic Botany, Vol. 2, p. 154, A. F. Sievers (1947).

*** S. C. Betlings, Jr. in Journ. Econ. Entomol. 27, 401–5 (1934).

*** A. Back and F. Rabak, U. S. Dept. Agric. Bull. No. 1051 (1922).

*** D. C. Kinnell, U. S. Patent No. 1,927,798 (1938).

*** C. Oddington, Kerler, Black, Owen, U. S. Patent No. 1,752,232 (1928).

*** Wall Street Journal, Dec. 26, 1947.

Estrogens in Urine and Cytology of Vaginal Smears after the Use of Estrogenic Cream*

Joseph Eidelsberg, M.D.

Estrogens, when administered by various routes, including inunction with creams and ointments, have produced alterations in vaginal smears and an increased urinary output of estrogens, according to various workers. The present study is intended to observe the effect of estrogen derived from a cosmetic cream containing 7500 I.U. estrogen per ounce of cream, applied by inunction. Urine assays and vaginal smears followed the progress of the work.

The cream used, approximately 2 grams per dose, was applied to the face each evening. About 535 I.U. estrogen was present in each dose. A total of 14 patients were studied ranging in age from 18 to 56 years.

Two tables summarize the data found. One table gives the estrogen output in the urine, expressed in rat units per 24 hours, in controls and in patients before and during estrogen inunctions. The other table follows the cytology of vaginal smears in controls and in patients before and during administration of estrogen by inunction.

Estrogen output figures during the period of estrogen inunctions are not significantly different from preinunction figures in the same patient or from untreated controls. Vaginal smears show no significant changes resulting from the inunction of 2 grams of estrogenic cream daily, after 15 weeks of application. It is concluded that the estrogen cream in the amounts used, by the method applied, does not appear to produce any systemic effect in the 14 patients tested.

Digest from American Journal of the Medical Sciences, 214, 630-632, Cream supplied by Dr. E. G. Klarmann, Lehn and Fink Products Corp., Bloomfield, N. J.

The Silva of North America, Sargent; Riverside Press, Cambridge (1896).

Royal Botanical Gardens; Kew Bulletin, 207, 2 (1913).

Manual of Cultivated Trees and Shrubs, Rehder; Macmillan, N. Y. (1940).

Economic Botany, A. F. Hill; McGraw-Hill, N. Y. (1937).

University of Texas Bulletin No. 3112, E. H. Johnson; Austin, Texas 381

<sup>(1931).

*</sup>Mr. C. L. York, Dept. of Botany and Bacteriology, Univ. of Texas, Austin, Texas.

¹ Timbers of the New World Record, Hess; pub. C. L. Pack Found. Yale Univ. Press (1943).

Cosmetic

Trends in the

Mid-West

As the first quarter of 1948 ends the upward movement in the sale of cosmetics shows a larger unit sale than last year. Normally the first two months of the year are slow in cosmetics, except for clearance sales. This year stock adjustment sales were made.

Cosmetic merchandising came in for close scrutiny after the slides made in certain lines. Non-profit and slow movers in either private label or name brands have been dropped. More complete stocks of lines now carried are offered and they have been given concentrated presentation. Advertising has been light.

FLORALS ARE FRAGRANCE FAVORITES

Florals lead all sales in the recent Valentine parade of fragrances when these had extensive advertising, window display and department presentation. Sophisticated types have followers, as always, but the current trend in both perfumes and colognes is for the lightness of scent which is characteristic of Spring blossoms.

High style establishments report better sales on florals

than on heavy fragrances. Popular priced stores report that all types are selling. Mandel's, Chicago, and Day. ton's, Minneapolis were a few of the stores that featured Sirocco: Tabu at Chas. Mayer & Co., Kansas City, Day. ton's, and Mandel's moved in volume; Houbigant, Matchabelli, Evyan, Ann Haviland, fragrances in both perfumes and colognes had Middle West presentation in all major stores, well illustrated, and drug stores did a major February sale for gifts on these and other leaders in the fragrance field. Summer trends are indicated in fragrances, with lilac in spot demand both in bath oils, perfume, cologne and toilet water. Such a group, combined with bath powder of the same fragrance, smartly packaged for display sells itself, say buyers, who are asking for gift packages. Such ensembles are wanted for Easter and all through the Spring.

As living prices move upward, basement departments are more important, and ensembled packages of cosmetics are among the best sellers. Soap, water softeners, and fancy lipstick holders and compacts are active in sale. Bottle collectors are also patronizing this section.

Purse perfumes in unit sales are better than last year. Flacons, preferably in plastic for lightness and durability, are important in sale, with heart shape containers in gold or silver good. Sales on such containers, filled with a choice of perfume, began at \$1.50 and ranged through \$12.50 as Valentine remembrances.

"This Summer we expect a good business on purse vials," said a Chicago buyer. "Dram business has introduced women to many new fragrances and we believe that flacons, vials and even small but well molded bottles will sell freely as another pocket-book accessory. Many of our customers comment that the idea of these small vials suggest the bottle of smelling salts their grandmothers carried. Smelling salts are again being sold for pocketbooks," he said.

KITS FOR TRAVEL

Sell an idea and a sale is made is an axiom which Marshall Field & Co., followed when it had a window of beauty travel kits, travel folders and a mannequin, carrying one, about to entrain. The idea clicked here as it did in Wasson's, Indianapolis and the Boston Store, Milwaukee, for kits have been in demand in price ranges from \$3.50 for a manicure outfit to \$135 for a fully equipped and fitted case that also serves as an over-night case.

Carson Pirie Scott & Co., Chicago, reports that in its "For Men Only" shop kits have been important for fine gifts. Outselling these in units have been the perfume cologne sets, many of them especially packed by the house for fine gifts. Other sellers are the two, three or four fragrances combined in one package such as Faberge has offered, both in fragrances for women and men.

At various perfume presentations to the trade a fountain has been used to give a fine definition of fragrance. Chas. A. Stevens & Co., Chicago has installed such a display and sales of the fragrance are quickly consummated. Featured at such special times as Valentine's Day, St. Patrick's Day and Easter, the theme is kept fresh as well as fragrant for the fountain does not play every day.

Sales do not show any specific items as being better

than others, although all treatment lines are more active than they have been in months. The spread in selling is regarded as indicating a good Easter business. Displays are more attractive; glass enclosures permit showing more featured items.

CONSUMERS' COSMETIC CUPBOARDS ARE BARE

eport

Day-

tured

Day-

igant.

both

ation

es did

other

indi-

oth in

uch a

e fra-

f, say

mbles

ments

of cos-

eners,

ive in

ection.

t year.

dura-

ainers

filled

anged

purse

intro-

pelieve

nolded

f these

their

being

which

dow of

requin,

d here

Store,

price for a

as an

t in its

for fine

erfume-

by the

hree or

as Fa-

en and

a foun-

grance.

such a

onsum-

entine's

is kept

ot play

g better

erfumer

How much the new look has had to do with increased sales is any buyer's guess. Most of them still have their fingers crossed.

The clearance of old stock, discontinued lines, and sales on packages that would be replaced with new ones went so well that the average buyer expected Easter would show the first upturn in sale of new goods.

As the old goods went out the front door the new look items came in the back and sales have exceeded expectations. The demand for treatment lines, and the new pastel pinks in rouge, powder, nail polish and allied lines, has indicated a trend. "Every one is going to look like a lady," said a leading buyer, "and the painted type is now passé. A hint of color in the cheeks, natural tones on lips to give the impression of peaches and cream is the idea that we're promoting in the department, in fashion shows and on the parading models that are on the main floor. The idea is catching on and it is producing sales."

Proof of this St. Louis buyer's comment was echoed in Chicago where one buyer said: "We have been studying sales checks and find that the average woman is purchasing not the usual one or two items, but as many as 16 and 17 on one sales slip. That is most unusual. All are for her personal use. This proves that the cosmetic cupboard is bare. Women have not bought like that since the tax went on. They complain about it, but buy in spite of the tax. We find that quality lines are moving well. National advertised items sell first, without any promotion. Display is all we need and sales are made. Yet, we find that display must be smart and have the 'new look.'"

THE NEW LOOK ACCENTS YOUTH

Not in years has fashion given so much attention to lines and designs intended to accent youth. Cosmetic houses are following this motif, although two years ago some of the leaders were featuring it in the various hormone creams. The idea caught on then and has been growing ever since. The sales today are merely the result of a long promotion planned to produce new sales.

Emery Bird & Thayer, Kansas City; Oreck's, Duluth, and Mandel Brothers, Chicago, were all leaders in this campaign and are now reaping a harvest of sales. Other stores have promoted the idea of featuring skin care as essential to retain the beauty of youth. Hudson's, Detroit; Wassons of Indianapolis are among the leaders whose presentations have been subtle, clever and smart. Sales have been easily made and from now on the lady-like make-up will have a much stronger appeal.

COSMETICS FOR SMART SKINS

Glamor advertising continues to pull its weight in sales. More effective is the Kansas City Petticoat Lane's appeal. This is to wear a hint of fragrance, after a relaxed home facial with a beauty mask to remove dead

tissue from the pores. Even the time of make-up is suggested—20 minutes treatment, and 10 minutes to complete the job.

Many stores are featuring masks, in special events and displaying them on counters. Part of the present sales' interest is due to educational clinics, say buyers.

BEAUTY COLUMNS IMPORTANT SALES' AIDS

The importance of local newspaper columns related to the new beauty items offered in local stores of major cities has done much to arouse interest in the New Look. These are handled by well trained writers who know the field, and often give some quick slaps, well expressed, to arouse in the older woman a desire to be modern in make-up.

Newspapers in all the leading cities of the Middle West are strong supporters of their stores and back up many promotions with smart articles. The name of the product or place of purchase is never mentioned. To obtain this information a woman must call the paper. Often as many as 1,000 calls are recorded on an item which is indicative of the importance of such information.

Beauty columns have as important a place in current women's pages as have style columns and every indication is that they are being given more attention than in pre-war days. The New Look and how to achieve it in one's face is given prominence, as well as discussing it from the angle of health, clean skins and relaxed bodies and minds.

BATH ACCESSORIES ACTIVE

A new trend has developed in bath accessories. Soaps are always important and sales such as those run by the Golden Rule, St. Paul, and The Fair, Chicago, as semi-annual events, move tons of both household and toilet types.

Bath salts, and bubble tablets or bath oils to soften the hard water of the Middle West are leading a new trend. Soap remains important, but there is so much stress placed on softened water for fine skin care that salts are moving in volume.

One reason given by buyers for this up-swing in sales is the package. Women have always chosen a good looking package and in bath salts that is proving true. One nationally advertised line that has been in bags and sold well, is now in boxes, with a cap. These are in colors to harmonize with bathroom accessories. The fragrance is indicated on the box, as a spray of pine, gardenias, apple-blossoms, jasmine, etc. Increased sales on this line is regarded as another indication of the bare cosmetic cupboard, as well as the change in packaging.

HAIR PREPARATIONS IMPORTANT

Cream shampoos were popular two years ago and sales were considered at a peak. These are moving upward as more and new items for hair care are offered. Home permanents, a big item of sale in the drug chains, and in department store notion sections, are partly responsible for the increased interest in hair preparations.

Non-drying shampoos are demanded. Tints are strong in sale. Lacquers, brilliantine and similar items to add new luster to hair indicate the smartness demanded for the New Look.

1

Packaging



TUSSY

HARRIET HUBBARD AYER



SCHIAPARELLI: A new two-ounce size of Sleeping eau de cologne has been added to Schiaparelli's pack-

been added to Schiaparelli's packages. The bottle is a lovely swirled candle tipped with red flame.

TUSSY: Tussy's "Garden Party" lipstick and nail polish is a charming new gift combination. The box is the same shade as the pink of the lipstick. Its gay garden decor is black and white. The clever slide cover slips up to say "Tussy Invites You to a Garden

HARRIET HUBBARD AYER: Two new lipsticks, "Just Pink," and "And Red," make their debut. Harriet Hubbard Ayer puts them into

Party."

golden plaid cases.

SCHIAPARELLI



The American Perfumer

248 March, 1948

HELENA RUBINSTEIN

HELENA RUBINSTEIN: The Happy Easter Box, apple green, decorated in blue, pink and yellow, contains three acetate Easter eggs. The back of the egg is pink, yellow or blue, with scalloped edge in the same color. A bright pink ribbon adorns the top. Each egg contains one of Helena Rubinstein's perfumes—Command Performance, Heaven-Sent or Apple Blossom.

YARDLEY: From the house of Yardley comes the new Cologne for Men. Smartly presented in a rectangular bottle it makes a handsome package.

JOHN HUDSON MOORE: Sportsman soaps for hands and bath are attractively boxed in threes and fours. Each cake bears the handsome insignia of a flying duck over the Sportsman signature.

RENOIR: Renoir's "ChiChi" and "My Alibi" are presented in purse size bottles. These slender faceted bottles boast of spill-proof applicators. Packaging features heart-red label and top for "ChiChi" and peacock blue for "My Alibi."



YARDLEY



RENOIR

arty"

is the

stick.

and os up orden

ER:

and

Har-

into

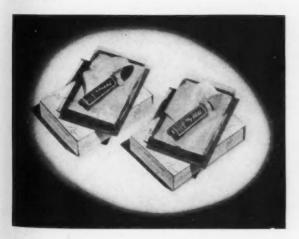
ounce e has

pack-

rirled

ELLI

rfumer

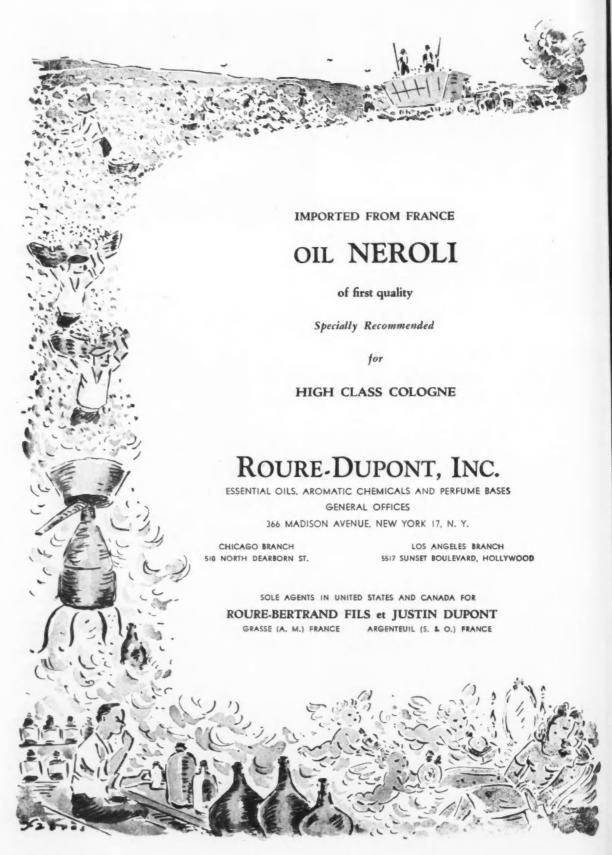


JOHN HUDSON MOORE



& Essential Oil Review

March, 1948 249



Esterification with Acid Anhydrides-Acid Chlorides

DR. KURT KULKA

LINALYL acetate in a yield of 60 per cent is obtained by heating for 15 hours to 105 deg.

30 parts of linaloe oil

10 parts of xylene

18 parts of acetic anhydride

6 parts of sodium acetate

Linalool and other tertiary terpene alcohols are esterified according to Victor Boulez¹⁸ by heating 5 g. of the material containing the alcohol with 25 g. of turpentine (which is used as the medium for acetylation), 40 g. acetic anhydride and 3–4 g. fused sodium acetate.

PYRIDINE

A. Verley and Fr. Boelsing¹⁹ were most probably the first to apply pyridine in esterification with acetic anhydride.

They applied their ideas primarily in the quantitative determination of alcohols and their method or modification of it (as for example suggested by M. Freed and A. M. Wynne²⁰) are still widely used.

E. Fischer and his co-workers favored the acetylation of sugars by using the respective anhydride and pyridine which method was originated by Behrendt and Roth.²¹

The interaction of acetic anhydride on an alcohol in the presence of pyridine at low temperatures was considered the mildest form of acetylation by E. Fischer & Bergmann.²²

ACYLATION OF PHENOLS

(a.) Monohydroxy phenols can be acylated by reacting the phenol with an excess of the anhydride whereby a catalyst is favorably used. For example "Aspirin" is usually prepared by the reaction of salicylic acid with acetic anhydride using sulphuric acid as the catalyst.

(b.) Polyhydroxy phenols: Mono-esters can be prepared by reacting the phenol with the anhydride at low temperatures; Resorcin-mono-acetate "Eurisol" is obtained if the phenol is treated with the theoretical amount of acetic anhydride at low temperatures.

O. Fernandez and C. Torres²³ recommend the addition of some drops of sulphuric acid to catalyze the reaction.

Pyrocatechol-di-acetate in a yield of 95 per cent results

(Dodge & Olcott, Inc., Research Department, Bayonne, N. J.) This article is continued from the February issue and will be concluded in the April issue of The American Perfumer.

if pyrocatechol is heated for 1 hour on a steam bath with double the amount of acetic anhydride.²⁴

In the preparation of pyrogallo-tri-acetate a catalyst as for example sodium acetate is of advantage.

ESTERIFICATION OF KETONES AND "CITRONELLAL"

Many cyclic ketones, for example menthone, suberone, cyclopentanone, etc. are partly converted into the ester of their enol form by energetic treatment with acetic anhydride or other acid anhydrides. Thus the acetylester of < |' tetrahydrophenol:

was obtained by Mannich 25 when he refluxed for 50 hours: 10 g. cyclohexanone, 30 g. acetic anhydride and 6 g. sodium acetate.

Under similar conditions simple aliphatic ketones, with exception of acetone, are converted into the ester of their enol form.²⁶

Citronellal on reaction over a period of 2 hours with acetic anhydride and sodium acetate is quantitatively converted into isopulegolacetate.²⁷

ESTERIFICATION WITH ACETIC ANHYDRIDE

By acetylation with acetic anhydride, following saponification of the acetate, the purity of an alcohol respective the number of the alcoholic hydroxyl groups of a compound can be determined.

Shriner and Fuson (Identification of organic compounds) recommend the following ways of preparing the acetates of glycols and other polyhydroxy compounds:

3 g. of the anhydrous polyhydroxy compound are mixed together with 1.5 g. powdered, fused sodium acetate and 15 g. acetic anhydride. The mixture is heated from a steam bath for 2 hours—under occasional shaking. Thereafter it is poured under vigorous stirring into 100 cc. of ice water. After the acetic anhydride is hydrolized, the crystals are collected on a filter, washed with water and recrystallized from alcohol.

2 g. of the polyhydroxy compound are added to 20 cc.

umer







In each of these great centers of the Soap, Perfumery and Cosmetics industries there is a Chiris company, with a complete production and distribution service. These companies pool all the experience and technical resources which nearly in the World's Essential Oil and Aromatic industries have made available to the House of CHIRIS.

ANTOINE CHIRIS Co., Inc.

119 WEST 57th STREET, NEW YORK 19, N. Y.

ESTABLISSEMENTS ANTOINE CHIRIS
GRASSE-PARIS

ANTOINE CHIRIS, LTD.

pyridine followed by 8 g. of acetic anhydride. After the initial reaction has ceased the mixture is heated to reflux for 3–5 minutes. The cooled reaction product is poured into 50–75 cc. of ice water. The acylated compound is filtered off, washed first with cold 2 per cent aqueous HCl. than with water and is finally recrystallized from alcohol.

The Schotten and Baumann reaction²⁸ which will be discussed in the following lines comprises a process in which an acid chloride reacts with an alcohol or phenol in the presence of aqueous alkali which is supposed to bind the evolved HCl, thus preventing it to act on the hydroxylic compound or on the ester formed.

$$R-CO-Cl + R'OH + NaOH \rightarrow R-CO-OR' + NaCl + H_2O$$

In consequence to the energies driving at the formation of NaCl, the ester-formation is speeded up considerably. However aqueous alkali can cause unwanted side-reactions as: anhydride formation:

$$_{2}R-CO-Cl + _{2}NaOH \rightarrow (R\cdot CO)_{2}O + _{2}NaCl + H_{2}O$$

alkaline hydrolysis of the acid chloride:

$$R-CO-Cl + {}_{2}NaOH \rightarrow R-CO-ON_2 + H_{2}O + NaCl$$

saponification of the formed ester:

$$R-CO-OR' + NaOH \rightarrow R-CO-ONa + R'OH$$

In order to procure the best possible yield the proper working conditions should be observed.

TEMPERATURE

All reactions gain on speed with rise in temperature. But this increase in reactivity varies in different cases. The reaction absorbing heat will be more effective than others going on at the same time. Before applying heat we will have to find out therefore to what extent—in proportion to the desired "main-reaction" the possible side reactions would be enhanced.

Cooling will depress the speed of the reaction favored by heat to a much higher degree than the others. Therefore, in order to obtain a maximum yield, we will have to lower the reaction temperature in many cases.

In the Schotten and Baumann reaction the yield is influenced to a great extent by thermal conditions.

Low temperatures—desirably around 0 deg. C.—are necessary to avoid the previously outlined side reactions. Similar observations were made by: Bruehl;²⁰ Menalda;³⁰ Houben-Weyl.³¹

The reaction is conducted by adding the acid chloride to the alcohol-alkali water mixture under agitation. This process has to be performed at such a rate that low temperatures can be maintained.

In the case of sluggishly reacting acid chlorides, the alcohol can be combined with the acid chloride and the reaction started and speeded up by adding the aqueous NaOH-solution.

For example the methylester of p-toluenesulfonic acid is obtained in a yield of 90 per cent when 840 g, of a 25 per cent aqueous NaOH-solution are slowly added to

a well agitated and cooled mixture of 1 Kg. methanol and 1 Kg. of p-toluenesulfonyl chloride.³²

A very efficient agitation is the only way to procure an even distribution of the reactants and is therefore indispensable in all cases. Spot overheating and other uncontrollable heat evolution can be circumvented this way.

As is generally recommended the use of an excess of the acid chloride is advisable to make up for the loss due to the previously outlined side reactions thus leading the reaction to completion.

For aliphatic acid chlorides of low molecular weight a relatively large excess varying from 5–30 per cent is needed. The amount of the excess diminishes with growing molecular weight of the halide.

Aromatic acid chlorides do not need to be taken in a large excess—their reaction usually proceeds more completely than those previously mentioned.

THE INFLUENCE OF WATER

As water hydrolyzes acid chlorides—which process is catalyzed by alkalies—the amount of water used should be as low as possible. Particularly when dealing with aliphatic acid chlorides of low molecular weight susceptible to hydrolytic split in a high degree this rule must be strictly observed. In practice, the alkali solution should be of maximum concentration and the reactants possibly dry.

If a KOH solution is used the yield is supposed to be higher than with a NaOH-solution of the same concentration (Menalda).

At the end of the process the reaction mass has to be distinctly alkaline. Thus any acid chloride which has not participated in the esterformation should be converted into the respective (water soluble) salt making the separation of the prepared ester easier.

The ester should be removed from the alkaline water solution as fast as possible, as an ester is saponified in or by this medium.

The rule is, that: (a.) the reactivity of aliphatic acid chlorides diminishes with increase of molecular weight; (b.) aliphatic acid chlorides react faster than aromatic compounds of the same molecular weight; (c.) arylsulfonyl chlorides are slow reacting.

In benzoyl chloride the reactivity of the halogen is diminished if a methyl-group occupies the p-position, whereas remarkable enhanced reactivity of the halogen results if a nitro group or a halogen occupies the pposition or a nitro group the o-position.²³

For the identification and isolation of certain high molecular compounds containing hydroxyl groups, 3–5 dinitrobenzoyl chloride is useful.

While the lower alcohols—with the exception of methanol—give poor yields, those of higher molecular weight lend themselves well to this synthesis.

In studies made by Norris and co-workers, applying nitrobenzoyl chloride as the acid halide it was found that the reactivity of alcohols decreases in the order: primary—secondary—tertiary.

Substitution on the 1 or 2 carbon results in reduced reactivity. Alcohols with a branched chain show decrease in reactivity. Aromatic alcohols are comparatively the least reactive especially when substituted in the a position.



jessamine alpha

Excitingly Modern

The Jasmin Finesse in Up-to-Date Perfumes

Ph. Chaleyer Inc.

160 EAST 56th STREET, NEW YORK 22, N. Y.

PLAZA 3 - 8618

$$\begin{array}{l} \text{HO-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH} + {}_2\text{CH}_3\text{-CO-CI} \longrightarrow \\ \text{Cl-CH}_2\text{-CH}_2\text{-COO-CH}_3 + \text{CH}_2\text{-COOH} + \text{HCl.} \end{array}$$

Applying the Shotten and Baumann reaction, however, good yields of the di-ester are obtained and Glycerin reacts for example almost in theoretical proportions. Dies34 used this fact to recommend the quantitative determination of Glycerin by preparing glyceryl-tri-ben-

Different alcohols, on reaction with the same acid halide give different yields of ester.

The amount of ester, according to Menalda's investigations, increases in the following order:

The following procedure is recommended by Menalda: A small amount of the water alkali solution is added to the alcohol followed by a sufficient quantity of the acid chloride to destroy the alkali on shaking. This procedure is repeated several times until all the acid chloride-necessary for the completion of the reactionis used up.

A somewhat similar technique is applied in the preparation of n-butyl-p-toluenesulfonate.3

2 mol. of butyl alcohol, 1.1 mol. of p-toluenesulfonylchloride are mixed together and 1.6 mol. (320 cc. of a 5/n) NaOH-solution are added under agitation over a period of 3-4 hours whereby the reaction temperature is not permitted to rise above 15 deg.

Thereafter another 1.1 mol. of p-toluenesulfonylchloride is added followed by 320 cc. of a 5/n NaOH-solution in small portions.

After the last portion of the caustic solution was added, the agitation is continued for 4 hours. The ester is separated, the aqueous part extracted with benzol. The combined layers, after working up, render a yield of 50-54 per cent of the desired ester.

FAST REACTING COMPONENTS

There are different ways open to keep the reaction under control: a.) efficient cooling; b.) retarding the reaction velocity by slowing down the incorporation of the reactants; c.) dilution with an inert solvent.

As water drops out of the picture, solvents not miscible with water can be applied.

MODIFICATION MADE BY CLAISEN

Claisen36 replaced water by inert solvents as ether or benzol. The liberated HCl is bound by alkalies or alkali carbonates in powdered form.

Therefore the possibility of side reactions caused by water respective aqueous alkali is practically eliminated.

For example, phenylbenzoate can be prepared in the following way: 28 g. of benzoyl chloride are gradually added to a refluxing mixture of 19 g. phenol, 42 g. potassium carbonate and benzol.

After working up the reaction product the yield

of ester is 31 g. Hahn and Walter³⁷ prepared esters of p-toluenesulfonic acid using dry KOH, dry ether and p-toluenesulfonylchloride and the respective alcohol. The method proved of value on account of the ease with which this type of esters hydrolyse.

Gilman and Beaber38 in their studies on preparation of hydrocarbons by the reaction between alkyl sulfonates and organo-magnesium halides applied this process for the preparation of n-butyl, sec. butyl, n-amyl and benzyl esters of p-toluenesulfonic acid.

Powdered KOH was slowly added to a well agitated ether solution containing equivalent weights of freshly distilled p-toluenesulfonyl chloride and the alcohol. The reaction temperature was not permitted to exceed 4 deg. However, no results could be reached this way with tertbutyl alcohol or triphenyl carbinol.

Dealing with polyhydric phenols, Sniewski³⁹ recommended calcium carbonate to bind the liberated HC1. Apparently sodium carbonate saponified the ester as soon as it was formed and was therefore not fitted for this

THE PYRIDINE METHOD

Einhorn and Zimmermann⁴⁰ introduced pyridine and other tertiary bases to esterification with acid halides.

According to Dennstedt and Zimmermann⁴¹ pyridine and acid chloride form in the course of the reaction a (very reactive) addition compound which further reacts with the respective alcohol to yield the ester and pyridine-HC1.

In this procedure the absence of water eliminates the possibility of anhydride formation and hydrolysis of the acid halide.

An inert solvent (benzol, toluene, etc.) is easily applicable as a mutual solvent for the acid chloride, alcohol and tertiary base.

The diluent effect of this solvent and the right contact between the components assure a smooth reaction progress. The formed ester cannot be saponified, which is the case if aqueous caustic is used.

- Bull. Soc. Chim. (4) 1, 117-20.
 B. 34, 3354.
 Ind. and Eng. Chem. Analytical Ed., 1936, 278.
 Annalen 331, 362, 1904.
 B. 50, 511, 1921.
 Annales Soc. Espanola Fis. Quimm 21, 22, 23.
 Haller, Lindner, and Georgi, B. 56, 1868.
 B. 39, 1594; B. 41, 564.
 Hancu, B. 42, 1052.
 Semmler, B. 42, 1052.
 Semmler, B. 42, 584, 963, 1161, 2014.
 B. 17, 2545; B. 19, 3218.
 B. 36, 4272.
 Rec. Trav. Chim. 49, 967-95.
 Die Methoden der Organischen Chemie.
 Organic Syntheses, Coll. Vol. I, 145.
 Norris and co-workers, J. Am. Chem. Soc. 47, 837; 49, 2640; 47, 1415.
 Organic Syntheses Coll. Vol. I, 145.
- 22 Norris and Co-workers, 7 47. 11, 472. 25 Organic Syntheses Coll. Vol. I, 145. 26 B. 27, 3182. 27 B. 54, 1531, 1931. 25 I. Am. Chem. Soc. 47, 518. 28 B. 28, 1874. 40 Ann. 301, 95, 1898. 41 B, 19, 75.

FLAVORS

Imitation Maple Sirup

MORRIS B. JACOBS, Ph.D.

RECENTLY one of my readers intrigued by my description of the preparation of maple flavored sirups (The American Perfumer, November, 1947) wrote me a letter asking a number of questions. Since it is entirely probable that other readers may be troubled by the same problems, and since these problems may arise in the preparation of other sirups, these questions will be discussed here.

USE OF CITRIC ACID

1. The use of citric acid is mentioned in the description of the preparation of imitation maple sirup in the November 1947 issue of The American Perfumer. Will there be much difference if tartaric acid is used?

The acid generally accepted as the natural acid of maple sirup and maple products is malic acid, HOCH(COOH)CH, COOH, l-hydroxysuccinic acid. Indeed, one of the "constants" used for testing genuine maple sirup is the malic acid value. Since, however, malic acid is not as common a commercial product as the fruit acid citric acid, it is customary to use citric acid in the formulation of imitation maple srup. Tartaric acid is the acid characteristic of grapes. Citric acid is the acid characteristic of the citrus fruits and a number of other frutis. Malic acid is the acid characteristic of apples and a number of other fruits also. Probably the principal reason for the use of citric acid in preference to either malic or tartaric acid in imitation maple flavor formulation is that it is less expensive. Thus relatively current quotations per pound for citric acid are .23 @ .26; whereas for tartaric acid they are .461/2 @ .49. Malic acid quotations on the other hand are much higher. Before the war one pound of inactive, powdered malic acid cost about \$1.25 whereas highest purity l-malic acid cost about 28-30 dollars per pound. If it

could be shown that a demonstrably finer flavor could be achieved, it might pay to use the higher price article.

GRANULAR CITRIC ACID

2. When only granular citric acid is available how can one convert to fluid ounces to use the granular citric acid that is available?

It is probably best to make a citric acid solution. General practice in making per cent solutions is to use the weight per volume system. In this system, the desired quantity of material is weighed out, dissolved in a portion of the solvent and then diluted to the required volume with the solvent. For example to make a 10 per cent salt solution, dissolve 10 grams of salt in water and dilute with sufficient water to make the total volume equal 100 ml. Thus in the instance in question dissolve 50 grams of citric acid in water and dilute the resultant solution to 100 ml. Then 29.5 ml. would be one fluid ounce of 50 per cent citric acid solution. This would be a 50 per cent solution in the weight/volume system.

In using United States weight and volume systems instead of the metric system, the conversion is not so simple. Thus to make a 50 per cent citric acid solution on this weight/volume system, dissolve 1 pound (16 ounces, 454 grams) in water and dilute to 908 ml. (almost 31 fluid ounces). Actually it will be adequate to dissolve 1 pound of citric acid in water and dilute to 1 quart which is 946 ml. The same ratios could be used for larger quantities, 5 pounds to 5 quarts, etc.

ANHYDROUS DEXTROSE

3. Could not anhydrous dextrose be used, pound for pound, in place of corn sirup?

In the formulation detailed in the article, Maple Flavored Sirups in the November 1947 issue of The American Perfumer, which incidentally is only one of a number that can be made, the corn sirup is used for several reasons. In the instance mentioned, it probably

(Adjunct Professor of Chemical Engineering, Polytechnic Institute of Brooklyn.)

could

le how r citric

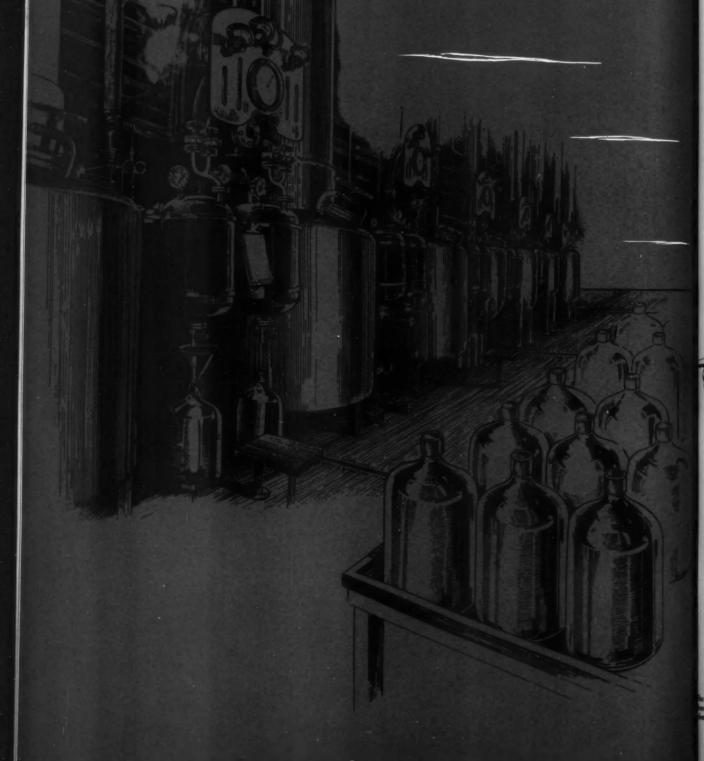
lution. to use desired a porquired 10 per er and rolume dissolve sultant e fluid uld be em. systems not so blution and (16 nl. (alate to te to 1 e used

nd for

Maple of The one of sed for obably

fumer

progress



n ounces... and tons



Constant and tireless research of Givaudan scientists has
resulted in the elaboration of new products and new processes . . .
has materially increased production . . . bringing greater
values and improvement in quality . . . making possible the manufacture of
some four hundred different aromatics, in quantities
ranging from ounces to thousands of pounds.



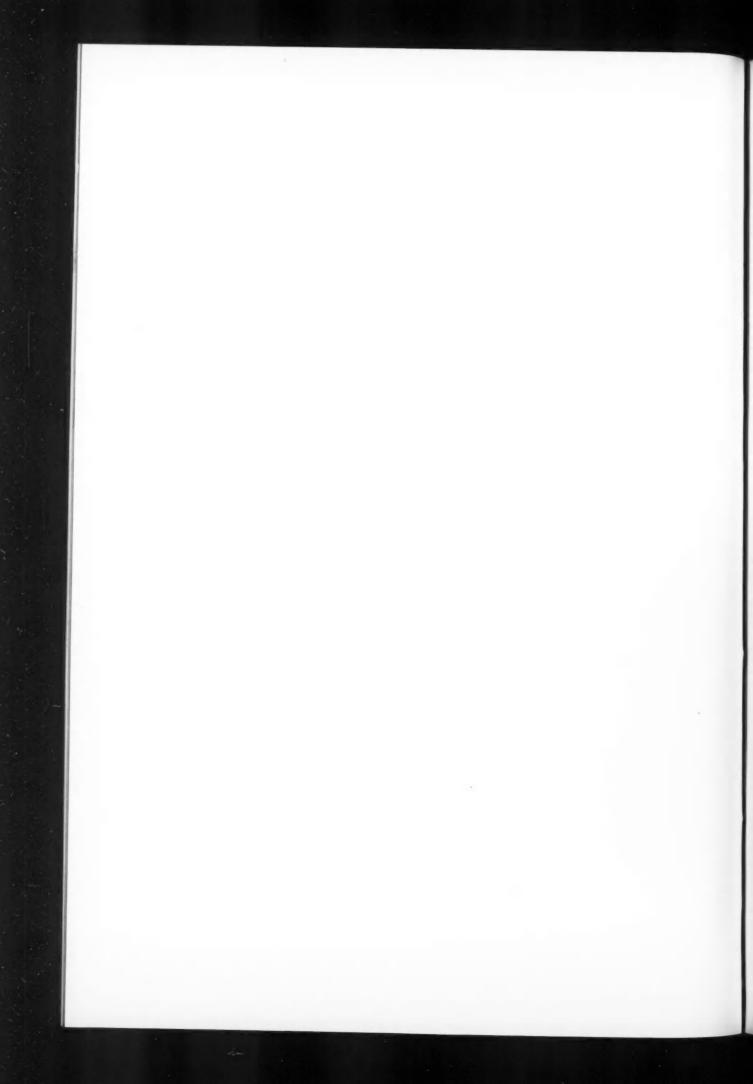
Synthetic musks are but one major example of Givaudan leadership . . . as pioneer in large-scale manufacture in America and Europe . . . as the reliable source of high-quality musks . . . in the development of new synthetic musks—Moskene and Musk Tibetine—which have won a large following among discriminating perfumers.

"Traditionally . . . Progressively . . . Dependably Givaudan"

Tivaudan Delawanna, Inc.

330 West 42nd Street, New York 18, N. Y.

Branches: Philadelphia • Los Angeles • Cincinnati • Detroit • Boston Chicago • Seattle • Montreal • Toronto



has a definite effect on the final flavor and is added for this purpose. In addition, it very likely retards crystalli-

zation of the sirup on standing.

Anhydrous dextrose is customarily made from cornstarch but it is not corn sirup. Anhydrous dextrose is the chem-substance substance known as *d*-glucose. Corn sirup or commercial glucose is the product made from cornstarch by incomplete hydrolysis. It is a mixture consisting of dextrose, maltose, and dextrins including the higher dextrins such as erthrodextrin. Thus dextrose would not give the same effect as corn sirup.

In the preparation of pancake sirups, it was the common practice when sugar was in tight supply to use refiner's sirup and malt sirup. The use of these substances was limited, however, because of their objection-

able odor.

FLAVOR COOLED SIRUP

4. Formula books instruct one to allow the hot sirup to cool prior to the addition of the flavor. Is this good practice?

Your formula books are correct in directing you to cool your sirup before adding your flavor. This is done for the reasons noted in the above-mentioned article, namely, to avoid considerable loss of maple flavoring components because of heat destruction and volatilization. The sirup, however, should not be cooled so much that it becomes difficult to stir in the flavor. The very slight loss in flavor components attributable to adding the flavor while the sirup is still warm is more than

IMPORTERS OF VANILLA BEANS
ALL VARIETIES

731-733 ARCH STREET

PHILADELPHIA 6. PA.
CABLE ADORESS. VANCORT
CODES: BENTLEY'S SECOND PHRASE

AND PRIVATE.

made up by the greater ease of mixing and the reduction in time of mixing to get homogeneous distribution.

BOILING SUGAR-WATER SOLUTIONS

5. Is it proper to add the citric or tartaric acid to the sugar-water solution and allow the mixture to boil for 30 minutes to invert the cane (sucrose) simple sirup?

The boiling of sugar-water solutions in the presence of acid to invert the sucrose present to invert sugar is a common practice. This is done in the belief that invert sugar is sweeter than sucrose. Invert sugar consists of d-glucose (dextrose) and d-fructose (levulose). Fructose is actually sweeter than sucrose but glucose is much less sweet. Thus 14.5 ounces of fructose is as sweet as 16 ounces of sucrose but 21.5 ounces of anhydrous dextrose are required to give the same sweetening effect as 16 ounces of sucrose. According to some authorities, pound for pound, invert sugar is just about as sweet as sucrose, but for every gram-molecular weight of sucrose, namely for every 342 grams, hydrolyzed to invert sugar, 18 grams more that is 360 grams of glucose plus fructose are obtained. This is due to the addition of 18 grams of water.

That is, for every 342 pounds of sucrose sugar used, 360 pounds of invert sugar result. This may account for the additional sweetening power. There is one other factor to consider. For every mol of sucrose, there are two mols of glucose and fructose. Since in all probability sweetness is a colligative property, that is, it is a property dependent on the number of molecules present, because there are twice as many molecules of glucose and fructose present as there were of sucrose alone, the greater sweetening power may be a result of the increase in the number of molecules.

One other result obtained by inversion of the sucrose to invert sugar is the prevention of crystallization in the finished sirup on standing.

IMITATION MAPLE SIRUP

6. Can imitation maple sirup be further boiled down into imitation maple sugar; or will it lose its flavor upon further boiling into concentrated sugar solids?

It might be possible to boil down imitation maple sirup to an imitation maple sugar but this would require adequate equipment such as special vacuum pans and allied equipment. Boiling in an open kettle would probably not be satisfactory for there would be a loss in flavor attributable to evaporation and possibly even a deterioration in flavor as a result of the drastic processing. The chance of a total alteration in flavor as a result of caramelization of the sugars is highly probable. It is also probable that the entire process may not be feasible from an economic point of view for the processing may be so costly as to make the final product more expensive than genuine maple sugar.

CONVERTING FORMULAE

7. What changes would be necessary in converting a formula, from a 50-gallon basis to a 1/4-gallon basis for experiments?

The simplest method using the United States system of weights and measures is to change all volumes to fluid ounces and all weights to avoirdupois ounces. Then divide the principal volume or weight to be re-



duced by the volume or weight desired to obtain the factor necessary for the other changes. In the instance given 50 gallons is equivalent to 50×128 or 6400 fluid ounces for there are 128 fluid ounces in one gallon. One quarter of a gallon is equal to 32 fluid ounces hence 6400/32 = 200. In the instance given since the same units are mentioned the factor could be obtained directly by division. Then every other volume or weight in the original formula, after conversion to fluid ounces or ounces should be divided by 200 or the requisite factor to give the corresponding volume or weight for the reduced formula.

In a laboratory equipped with balances and measuring devices graduated in the metric system, it is customary to change the volumes or weights of a formula given in United States units to the metric system, that is, gallons to ml. (or cc.) and pounds or ounces to grams; then a suitable reduction in volume or weight in a given formula can be obtained by simple division by 100, 1000, etc.

Flavored Notes

Per-

ts or

e and

f run,

elling

ited.

The introduction of a new synthetic flavor or food adjunct is always fraught with problems. An instance in point are the alkoxyaminonitrobenzenes. When these compounds were introduced as synthetic sweetening agents by Verkade in 1946, their anesthetic activity was mentioned but they were said to be harmless when ingested. Recent work by the United States Food and Drug Administration on 2-amino-4-nitro-1-propoxybenzene, an alkoxyaminonitrobenzene which is 4,100 times as sweet as sucrose, that is seven to eight times sweeter than saccharin, has shown that it has anesthetic properties which make it much more powerful than co-caine. For this reason its use should await more complete testing by the Federal Agency.

Ammonium isolvalerate, (CH₃)₂CH₂CH₂COONH₄. 2(CH₃)₂CH₂CH₂COOH, is a colorless, deliquescent, crystalline material with a characteristic pungent odor.

It is soluble in water and has been suggested for butter



Among the "fine herbs" used to flavor many egg dishes are basil, marjoram, rosemary, thyme, and tarragon.



In going through one of my old books I came across a reference saying that methyl ethyl acetone has a peppermint odor.—M.B.J.

Spearmint Oil, Chile

Spearmint oil is not produced in Chile on a commercial scale, but there are small plantings of spearmint (Mentha viridis, L.) by private individuals for domestic consumption. No production figures are available.

In 1945 and 1946, extensive plantings of peppermint (mentha piperita) and bergamot mint (Mentha citrata) were made on an experimental basis at the request of the Laboratorio Chile, a manufacturer of pharmaceutical preparations. Approximately 40 acres were cultivated, and oil production per acre was calculated at 18 pounds. A general degeneration of the plants caused this project to be discontinued.

Spearmint oil used in Chile is supplied through import channels. Countries of origin are chiefly Argentina and Brazil. No breakdown of the spearmint-oil consumption is available but Chilean agriculture experts calculate annual consumption of all mint oils at 3,000 kilograms, not including an additional 2,000 kilograms in the form of menthol. Principal consumers of mint oils are Chilean manufacturers of pharmaceutical and drug preparations, liqueurs, and candies.

Several agricultural sectors of the country reportedly are highly suitable for the cultivation of spearmint and other mint plants. Agricultural technicians state that the oil produced in Chile is of a high grade and believe that the production of mint oil may be undertaken by more planters if market prices and yield per acre are maintained at favorable levels.

HOW TO SOIVE YOUR COLOR PROBLEM

Use F. D. & C. Certified Food Colors for Flavoring, Extracts, Flavors and all other food products.

Note this D. & C. and Ext. D. & C. Colors for Perfumes, Soaps, Shampoos, Bath Salts, Toilet Preparation Compounds, Waveset, and Brilliantines. Try SAPONINE today—the perfect foam producer.

SAMPLES MATCHED

Eastern Representatives of Wm. J. Stange Co., Chicago, III.

LEEBEN

CHEMICAL CO., IN

389 WASHINGTON ST., NEW YORK 13, N. Y.



TEL.: WALKER 5-0210-0211

BRIDGEPORT

Metal Cosmetic Containers Caps and Closures

Perfume and cosmetic manufacturers for more than a quarter of a century have recognized the precision craftsmanship of Bridgeport Metal Cosmetic Containers.

The consistent uniformity and beauty of our products has resulted in many leading manufacturers remaining as consistent users of Bridgeport Metal Containers.

When you are again planning a product that requires an original design be sure to examine the fine precision and decorative beauty of Bridgeport Products.

Bridgeport Produces

Vanities

Jar Caps

Bottle Caps

Lipstick Containers - Swivel, Slide, Auto-

matic

Dry and Paste Rouge Cases

Powder Boxes

Perfume Vial Cases and Caps

Lip Brushes

Drawn Tale Containers

Miscellaneous Make-up Cases and Other

Metal Specialties

THE BRIDGEPORT METAL GOODS MFG. CO.

Established in 1909

BRIDGEPORT, CONN.

PHONE: BRIDGEPORT 3-3125



Trends in the Detergent Field

ANTHONY M. SCHWARTZ

WITHIN the past ten years the production of synthetic detergents in the United States has increased about tenfold and has assumed the proportions of a major industry. Over 100,000 tons of synthetic detergents were produced in 1946 and the estimated production for 1947 is considerably higher. In Germany, during the war years, synthetic detergents were produced on an enormous scale and completely overshadowed the fat-based soaps. It should be pointed out, however, that the disappearance of soap in Germany was due to economic conditions and not to any normal competitive superiority of the synthetics. It was under similar circumstances in Germany during World War I that the synthetic detergent industry was born, and the products made at that time were so inferior that they would not even be classed as detergents today.

When any industry or any field of technology is in a state of rapid growth it is inevitable that the basic ideas and concepts which should guide the growth become, from time to time, somewhat confused and disorganized. About a year ago, when the soap shortage was acute, it would have been quite difficult to attempt an analysis of even the broad long range trends. Not only the good synthetic detergents but even those products which had been generally considered outmoded and inferior were enjoying record sales. In retrospect, this is not too surprising. At the height of the automobile shortage a stock of unused Model T Fords could probably have been sold with no difficulty. Today, although the production and use of synthetic detergents continues to accelerate, it is possible to pick out a number of technical concepts and trends which appear to have long range significance. These trends relate to the utilization and selection of detergents, to the individual chemical types which are now emerging as dominant, and to the relative technical merits of the soaps as compared with the synthetic products.

One of the more important trends appears to be toward specialization, that is, the attempt to develop numerous specific surface active compositions, each designed for an individual end use. This tendency contrasts with the idea that a single super-versatile product, suitable for all purposes, might be developed.

The surface active agents as a class (including both soaps and synthetic products) are utilized for their detergent, emulsifying, wetting, dispersing and penetrating properties as well as for other more specialized properties. The number of individual commercial applications for these materials, so far as we know, has never been tabulated but it must run into the thousands. It is obvious that one single product will not give optimum results in all these different applications. Even in a single field, detergency for example, the need for specialization and specification is apparent.

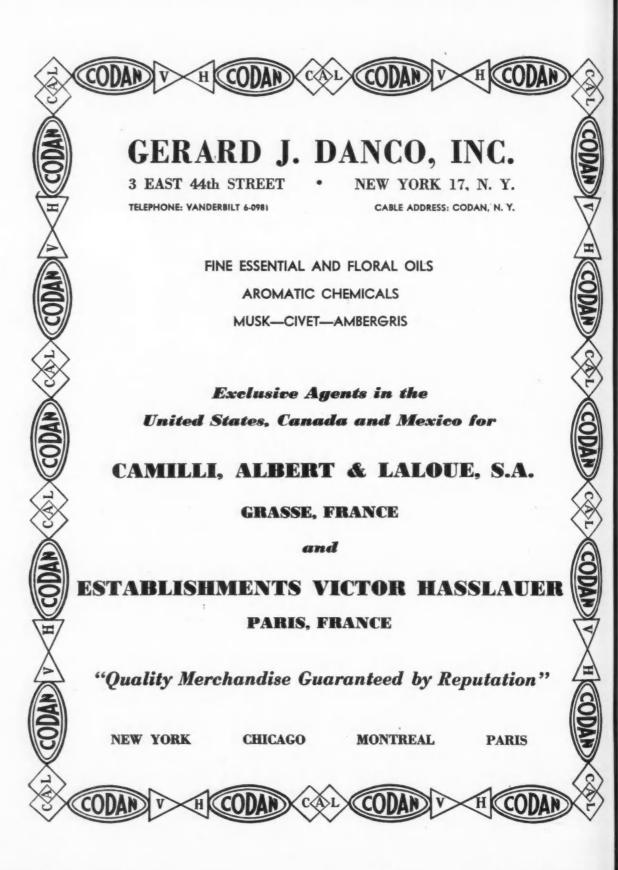
DETERGENT POWER

A detergent which will clean mineral oil and graphite from woolen fabric may be useless for cleaning concrete floors or coffee cups or painted surfaces. It is well known that detergent power depends not only on the chemical nature of the detergent itself. It depends fully as much on the material which is being cleaned (the substrate) and the type of soil which is present. Detergent power also depends, just as heavily, on the conditions under which the cleaning operations are carried out. Soap, for example, is an excellent detergent for oil-soiled fabrics provided it is used in warm, reasonably soft water. Its efficiency decreases rapidly as the water becomes colder or harder. In acidulated water it doesn't function at all.

These facts are quite elementary and not at all new. It has nevertheless been a rather widespread practice to

(Harris Research Laboratories, Washington, D. C.) From an address before the Soap and Detergent Manufacturers Association, Jun. 27, 1948

fumer



indicate the detergent properties of a product, if they were indicated at all, in terms of one or two tests, such as the highly specific launderometer test, the various wetting or foaming tests, or even such an indirectly related property as the surface tension. The current tendency on the part of both manufacturers and users is to analyze each specific cleaning problem more carefully, and to carry out their evaluation of new products under conditions which closely resemble or duplicate those encountered in the field. Many large scale manufacturers of bulk detergents maintain application research laboratories whose function is to find out how their product may be adapted most effectively to the needs of their numerous individual customers. Users, on the other hand, are becoming more aware that a new product may not show up to best advantage under the old conditions of application. There is accordingly a greater willingness to change the whole procedure of application if an overall increase in economy or effectiveness can be demonstrated.

This situation may be regarded as helpful from many points of view. Aside from increasing our technical knowledge it should ultimately tend to decrease the number of points at which the various detergents, soaps included, compete with one another. Each detergent class, by virtue of its specific properties, may be expected to become predominant in one or two broad fields of application, and leave other fields to more suitable detergent types. This tendency is well exemplified by the cationic detergents, which have found their particular major spheres of utility within a few short years, and have become well established for certain germicidal and textile finishing applications. In other fields they have had little or no success.

A second important trend in the detergent field is an increased emphasis on formulations and mixtures rather than on the development of new individual detergents. This development is an outgrowth of the fact that most practical application problems are best solved by the use of mixtures or "prescriptions" rather than by the use of a single pure surface active agent. This idea has long been recognized by soap producers and it is, in fact, the basis of such various specialty businesses as textile specialties, industrial cleaners, shampoos, etc. Even in the field of large scale bulk product manufacture formulated products such as built soap powders, soluble oils, etc., are well established, stable items.

The producers of synthetic detergents have not been slow to realize the enormous possibilities which their products afford for new formulations and new specialties. Until quite recently, however, most of these specialties have been based on a single selected detergent blended with suitable inorganic builders, solvents, oils or whatever type of auxiliaries was appropriate.

As the fundamental scientific knowledge of surface active effects is increasing, the art of formulation is being transformed into a science. One example of this is the current widespread interest in the study of synergistic effects.

SYNERGIST EFFECT

It is becoming increasingly recognized that the various detergent types can often complement each other and the resulting mixture of two detergents may be much more effective than either one used alone. This synergistic effect is highly specific. Any one detergent will have relatively few good synergists among the other detergent classes. There are, however, several synthetic detergents which appear to be synergists for soap. The mixtures not only show greatly increased lime resistance, functioning more effectively in hard water, but in some cases they show greater overall detergency in soft water. One of the earliest and best known applications of the synergistic effect was in the Army's well known all-purpose soap bar. Since that time, several more effective compositions have been developed, and more are being discovered.

One excellent example of the possibilities for synergistic mixtures is in the field of shampoo. Here neither the pure soaps nor any of the better known synthetics give optimum results. The soaps tend to leave a dull film on the hair unless the softest water is used. Most pure synthetics, on the other hand, leave the hair so free of oily material that it is undesirably harsh. Several of the more modern and successful shampoo formulas include both soaps and one or another of the synthetics, thereby achieving a better overall effect than either product would give if used alone.

The advantages of synergistic mixtures for emulsification are very well known. The most stable emulsions are usually obtained when two well matched emulsifying agents are present, one of which is more oil soluble and the other more water soluble. The fact that soaps by themselves are excellent emulsifying agents is ascribed partly to the fact that they hydrolyze and form some free fatty acid. The fatty acid is oil-soluble and is adsorbed at the oil-water interface together with the water-soluble soap ions.

Together with an increased interest in synergism there is an increased interest in the development and use of builders. It has been generally recognized for several years that the so-called alkaline builders, including carbonates, orthophosphates and silicates, have an effect beyond their mere alkalinity or buffering capacity. When the newer complex polyphosphates were first introduced, they were regarded primarily as sequestering agents for heavy metals, in other words, as water softeners. It has been well demonstrated, however, that they can improve the detergency and other surface active properties of many different types of detergents even in pre-softened water. The same considerations apparently hold true in the case of the newer, stable organic sequestering agents. The most recent additions to the group of builders are the organic builders, of which carboxymethyl cellulose is the best studied example. These substances are being actively explored at the present time, and some of them are so close to being full fledged detergents themselves that they might almost be classed as synergists rather than builders. Builder action, like synergism, and in fact like all surface active effects, tends to be highly specific. Each individual detergent behaves differently with the various builders. Its action may be boosted by some builders, harmed by others and, in some instances, not affected at all. Furthermore, a single builder may improve one property of a detergent while adversely affecting another property. Many of the inorganic builders, for example, may improve the detergency of a soap or a sulfonate detergent, but at the same time their salting

Broder does it again

WATCH FOR THE NEWEST

BRODER

LIPSTICK CASE

SENSATION

Wholly different from anything ever made

WORKS BETTER...
COSTS LESS

BRODER INDUSTRIES

167 WEST 64th STREET, NEW YORK 23, N.Y. . TRafalgar 7-0092

out effect may reduce the solubility to a point where the preparation of saleable liquid preparations is impossible.

UTILIZATION OF DETERGENTS

The foregoing developments in the utilization of detergents add up to new opportunities for formulators and specialty manufacturers. It is generally more economical for the large scale producer to concentrate on a few basic detergent products rather than to develop and market numerous individual detergents, each of limited applicability. Until the advent of the synthetics the formulator had only two primary surface active agents with which to work, the soaps and the sulfonated oils. The early development of synthetics, with literally hundreds of new compounds being disclosed and patented, held an apparent threat of replacing specialty formulations by a series of individual detergents. The pendulum now seems to be swinging back toward a new equilibrium with a relatively smaller number of selected synthetic types here to stay, and the formulator's services more in demand than ever. The new tools which the formulator or specialty manufacturer has at his disposal include the new primary detergents, the new builders and synergists and, last but not least, the rapidly increasing fund of published scientific and technial knowledge concerning these products. Up to the present time the specialty manufacturer has often been in competition with the bulk producer on one hand, and with his own customers on the other. In the future there may well be a tendency for the bulk producer to move further away from the specialties and into the economic realm of heavy chemical production. The user of specialties, by contrast, may find that the art of making the newer, more efficient formulas is getting too intricate. The functions of the specialty manufacturer would accordingly become more and more indispensable in the economic chain.

There remains to be considered the competitive picture among the various synthetic detergents themselves, and the relative status which the soaps may be expected to assume

From the chemical point of view all surface active agents may be divided into three classes: the cationic, anionic, and non-ionic, depending on the nature of the solubilizing group. For purposes of the present discussion we need not consider the cationics since they have already become a specialized group and are not in competition with the other groups. Among the anionic detergents the three principal solubilizing groups which are used are the carboxy acid, the sulfuric ester, and the sulfonic acid groups. The soaps are carboxy compounds. The sulfated fatty alcohols, of which the Dupanols are examples, are typical sulfuric ester compounds, and the alkyl aryl sulfonates of the Nacconol type are typical sulfonic acid compounds. In practical working properties the carboxy acids are quite different from the other two groups, principally in their sensitivity to acids and heavy metal salts. The sulfuric esters and sulfonic acids do not differ greatly from each other in their working properties. Differences among the individual sulfuric esters, due to differing non-polar or water-insoluble groups, can be much greater than the difference between Dupanol and Nacconol, for example.

Both sulfuric esters and sulfonic acids, as a class, have relatively little sensitivity to acid or lime.

The non-ionic detergents, with one or two exceptions, depend on the polyethylene ether grouping for their solubility. This grouping may be joined to a non-polar carboxy acid through an ester linkage (which is sensitive to alkali); or it may be joined to a non-polar alcohol or phenol through a stable ether linkage. We have accordingly the polyglycol esters and the polyglycol ethers as the two major groups of non-ionics. The most important exception is the cocoanut fatty diethanolamide type (Kritchevsky's detergent) which is unique, so far as its chemical structure is concerned, among those detergents which are produced on a large scale.

From the economic point of view, the major detergents may be classified, on the basis of their raw materials, into the fat-based and the petroleum-based groups. There are other sources of non-polar groups, such as rosin, but these have not to date achieved major importance. It is difficult to see how any of the fat-based detergents can be produced at a lower cost per pound than soap. There is only one important class of fat-based detergents now being produced whose raw material costs may be lower than soap, and that is the group of sulfated fatty esters and sulfated oils. There are relatively few individuals in this class which may be regarded as competitors for soap, because of the wide difference in physical properties. We are therefore at least partly justified in saying that fat-based synthetics can displace fatty soaps only in those applications where their superior properties can offset their higher cost. The cost of the petroleum-based detergents is not directly tied to the price of raw fats and oils, and it is much more difficult to predict their future price ranges relative to soap.

Another important difference between the fat-based and petroleum-based detergents concerns their future technical development. There are relatively few chemical varieties of the long chain, non-polar, fatty structure available in the series of natural fats. We are limited to the six saturated fatty acids from C_s to C_{1s}, oleic, linoleic and ricinoleic acids. These nine non-polar groups have already been explored very thoroughly, and have been combined with many different solubilizing groups through many different intermediate linkages. It would therefore be unreasonable to expect any startling technological improvements among the presently produced fat-based detergents. In the petroleum-based series there is potentially available a much wider variety of nonpolar groups. These are still being explored, and more potent and more versatile products are being introduced on the basis of newly developed petroleumderived non-polar groups. In short, we can expect greater significant technical improvements in the present petroleum-based detergents than in the fat-based detergents.

Let us now examine the five major groups in the anionic and non-ionic classes with regard to their present raw materials.

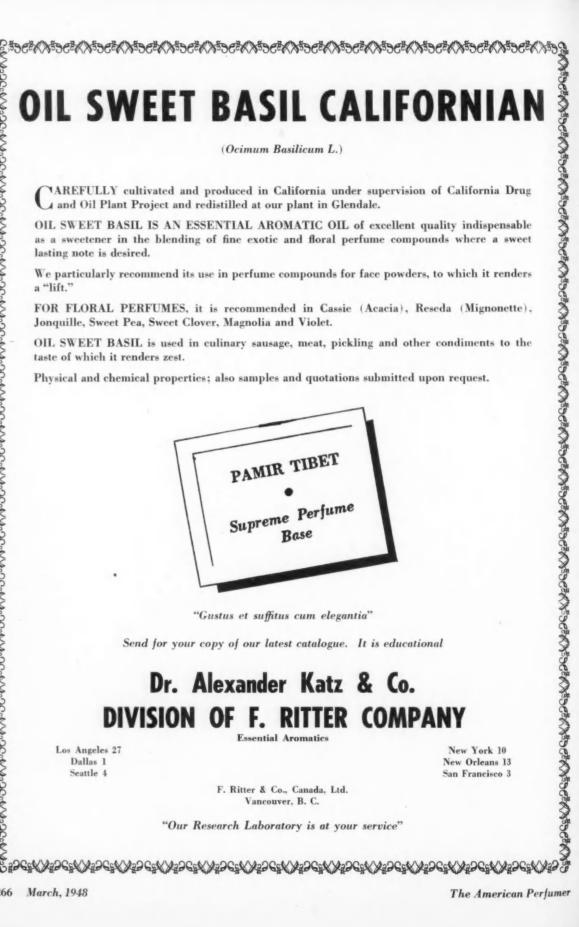
The important soaps are, in this nation at least, all based on fats or rosin.

The sulfuric esters are, with few exceptions, also based on fats.

The sulfonic acids are mostly petroleum-based, although at least one important product, Igepon, is fat-based.

umer

\$\$JE\$K\\\$\$JE\$K\\\$\$JE\$K\\\$\$JE\$K\\\$\$JE\$K\\$\$JE\$K\\$\$JE\$K\\$\$JE\$K\\$\$JE\$K\\\$\$JE\$K\\\$\$JE\$K\\\$\$



NEG CENTED CENTE

In the non-ionic series the polyglycol esters and the cocoanut fatty diethanolamide are fat-based. The polyglycol ethers include some fat-based products, but by far the greater poundage is petroleum-derived, being made from alkylated phenols.

Thus we see that today the important sources of higher carboxy acids and higher alcohols are the fats. The important source for sulfonatable non-polar hydro-

carbons and alkyl phenols is petroleum.

A highly significant possibility for the future is the development of petroleum or mineral-based carboxy acids and non-polar alcohols. This development was well advanced in Germany during the war years and

appeared to be quite promising.

Carboxy acids, made by the oxidation of paraffin wax, were produced in large quantities in Germany even before the war. They were converted directly into soaps and were also used as a raw material for synthetic detergents of the Igepon type. For both purposes they were generally inferior to the natural fatty acids. This is not surprising, because the crude oxidation mixture from paraffin wax contains a large percentage of byproducts as well as the useful fractions of carboxy acids. The quality, as well as the cost and yield of these acids, depends on how carefully they are separated from the crude mixture. Acids from paraffin wax oxidation have been made in the United States for many years as a specialty item, and they appear to have aroused no serious interest as large scale detergent intermediates.

A more recent German development, and one which has aroused interest in this country, is the production of higher alcohols and carboxy acids by the so-called oxo process, using higher olefinic hydrocarbons as the raw materials. The olefinic hydrocarbons may be made by polymerizing the lower gaseous olefines, or they may be made directly from water gas by the Fischer-Tropsch process. The polymerized olefines are already large scale intermediates for alkyl aryl sulfonate detergents, and Fischer-Tropsch plants are being developed or installed by some of the large American petroleum re-

finers.

CEXXED CE

THE QUALITY OF DETERGENTS

The quality of the detergents which may be produced from these sources remains to be determined, but German research reports indicate that it compares favorably with the quality of analogous fat-based detergents. The cost of these acids and alcohols is also an unknown quantity, but it quite possibly may become as low or lower than that of the fat-based detergent intermediates.

It is apparent from these considerations alone, and many others we have not mentioned, that the synthetic detergent industry is far from approaching technical stabilization, even though it already produces a huge poundage of well established products. The technical advancements, however, appear to be centering around the petroleum-based or purely synthetic products. It is possible, therefore, that the soaps may not only retain but actually increase their present economic dominance of the fat-based field. Even in comparison with the petroleum-based primary detergents the soaps offer such high money value in so many different applications that it is difficult to see any immediate serious shrinkage in their markets.

Roscoe C. Edlund Resigns

Roscoe C. Edlund, author, lecturer, and for the past 21 years secretary and manager of the Association of American Soap & Glycerine Producers, resigned his position January 31. His plans for the future were not announced, other than that he and Mrs. Edlund would take a rest in Florida. Mr. Edlund left a host of friends, both in the association which he served so long and faithfully and outside it. It is hoped that his activities will soon return him to this circle of friends.

Lever Building Stearic Acid Plant

The Chemical Plants Division of Blaw-Knox Co., has received a contract from Lever Brothers and Unilever Ltd., of London, England, to design and construct a plant using the Emersol Process for the production of stearic and oleic acids. These products in turn will be used for cosmetics, chemical intermediates, candles, soaps, etc. The plant will be located in England and erection will be under the direction of Blaw-Knox engineers. The amount of the contract is approximately \$350,000.

Copra Output in Mexico

The production of copra and coconut oil in the Acapulco district of Mexico, while relatively small, is becoming increasingly important as plantations there are being expanded. Production of dried copra in the area tributary to Acapulco is now about 15,000 tons a year. About 10,000 tons of the copra are being processed in the La Especial oil and soap factory at Acapulco. About 5,000 tons are being shipped to Mexico City where it is processed by other factories.

P & G Creates Overseas Division

The creation of a new Overseas Division with W. L. Lingle, Jr., as manager has been announced by Procter & Gamble Co., Cincinnati, Ohio. Harold H. Staff has been appointed director of marketing and Morton P. Woodward has been named director of manufacturing in the new division. The Overseas Division will be responsible for all phases of the operations of the company's foreign subsidiaries and the marketing operations outside the United States, except for the operations of the Procter & Gamble Trading Co., and the Hawaiian and Alaskan operations. Additional personnel changes announced at the same time include the appointment of J. H. Taylor as director of industrial relations, and D. F. Howe as director of industrial engineering. Mr. Taylor will assume responsibility for health, safety, employee service, employment, training, personnel research and labor relations. Mr. Howe will be in charge of the company's research and development work covering methods and equipment.

Over fifty years have passed since the first synthetic pasmine, created by Schimmel, appeared on the market. Continuing our leadership in this field today we offer several synthetic jasmine specialties.

Osmodor Jasmonta This basic jasmine of great strength gives a very natural effect. Can be used with jasmine or other floral or fancy bouquets to add distinction to your composition.

Jasmine "Sch. & Co." 1000 A true reproduction of the absolute, redolent as the fresh flower. Can be used with the natural product or to replace it on a pound for pound basis.

We welcome the opportunity to have you judge our jasmines. Write us on your firm's letterhead for samples.



schimmel & co., inc. 601 west 26th street new york 1, new york

WASHINGTON PANORAMA

by ARNOLD KRUCKMAN

THE understanding here is that Congress will create an institution to be known as the European Recovery Administration, when the Marshall Plan is finally enacted into law. It is anticipated the Marshall Plan will become the European Recovery Plan Act not later than May. The present mounting tension over what is happening in Europe by way of Czechoslovakia and Finland is expected to spur the people on the Hill to

far greater haste than originally planned.

Those who are presumably "in the know" feel Russia is moving more swiftly to make Europe Russian than Hitler ever moved to make it German. There are many who frankly doubt whether the Marshall Plan will salvage the 16 Western nations. The fear is that they will not be able to withstand the Communist pressures. It is often pointed out in private conversation that to all intents and purposes the Moscow Government already dominates Europe, and is the controlling power in Asia. There is little camouflage about the fact that the Russians are the real force in the conflict in China. In Europe, while Allies of Hitler, they took over Estonia, Latvia, and Lithuania; since they have been our Allies, and the Allies of Britain, they have taken over Poland, Hungary, Romania, Yugoslavia, Bulgaria, Albania, Czechoslovakia, and will probably have taken over Finland by the time this is published. And, of course, they dominate the most substantial part of Germany.

There are many on the Hill who think by late Spring the situation may turn the Marshall Plan into a far more formidable instrument than the thing now under discussion. There are tentative discussions that imply the program for universal military training may be converted into compulsory military service—conscription.

The European Recovery Administration is designed to act as the business agent for the people of the United States. It will spend the money, the billions—(anywhere from \$20,000,000,000 to \$50,000,000,000)—the Congress provides to purchase fats, oils, chemicals, machinery, and other goods and services to be used to rehabilitate Europe. Moreover, it is expected to do the same job for Asia, Africa, Indonesia, the Far East, and the Near East. It will have the authority to spend the stupendous sums.

The idea seems to be it will buy all exportable commodities on behalf of the United States Government in the United States, ship them to the countries of Europe,

and distribute them among the 16 countries according to plan. It is estimated this program of purchase and distribution will cover about 70 per cent of the materials and commodities necessary for European Recovery. Apparently about 30 per cent is expected to be bought privately by the Europeans with American money from American business people. But the impression here is that it will be found rather trying to have a minor export program under private operation, and a major program conducted by the Government. For this reason it is anticipated the European Recovery Administration in quick order will become the over-all export agency for both Government and private procurement and for distribution in Europe. It is felt this program will especially be essential since most of the transactions in Europe will be conducted with Government agencies and trading corporations.

It is also expected the European Recovery Administration will eventually become the agency to handle the bulk of the imports from Europe to the United States. The estimate is that our Marshall Plan exports will gross approximately \$20,000,000,000 in value in the 5 year period now indicated. The thought is generally held that the Marshall Plan must be continued at least 5 years additionally after the initial operation, which would make a total of not less than 10 years; and that the cost, at the end of the ten years, will be roughly \$50,000,000,000,000. At the same time, during the first 5 year period, it is calculated that the Europeans will ship into the United States raw materials and fabricated

articles to a total of \$30,000,000,000.

It is this huge import, as well as Government trading transactions, the European Recovery Administration will handle on behalf of the Europeans, as well as on behalf of the Americans. The thought is that ERA will assemble the imports abroad, and will purvey and distribute these imports to American buyers, acting as a Government agency on behalf of the Europeans, and as broker on behalf of Americans. Moreover, if and when, the Administration functions elsewhere in other parts of the world, it will obviously have the same duties to perform.

It is easy to perceive that this may mean ERA will swiftly be transformed into the biggest of all big business in the world. It will undoubtedly become the greatest trading unit the Earth has ever known. There seems



CALFLORAL LILY OF THE VALLEY

A delightful reproduction of the delicate but enchanting fragrance of Lilies of the Valley.

For fine extracts and colognes Calfloral Lily of the Valley gives incomparable results. For sachet, dusting powder, creams and soap there are special modifications of the same fragrance available.

Calfloral Lily of the Valley is reasonably priced and a sample will be mailed promptly on request.

COMPAGNIE PARENTO

INCORPORATED

CROTON · ON · HUDSON, NEW YORK

NEW YORK DETROIT CHICAGO LOS ANGELES SAN FRANCISCO TORONTO MONTREAL

little doubt that it will settle down into a permanent agency despite the fact that it is to be established as a temporary instrumentality. They point out here that the Credit Commodity Corporation started its existence during the 1930 depression days purely as a very temporary agency to help farmers avoid bankruptcy. It was its business to transform grain into cash.

The CCC is now an agency with a capital of \$100,000,000,000, and the authority to borrow up to \$5,000,000,000. It was originally created by Executive Order, and still has no existence by authority of law. Despite this anomalous position, it now has jelled into a permanent Government institution, regarded as the most powerful single instrumentality of the Department of Agriculture. It is one of those agencies which is organized under the corporation laws of Delaware. It has a charter which virtually permits it to do almost any business its authorized officials may choose.

The penny in retail trade is a great nuisance to many buyers. Other merchandisers, saddled with increased production and distribution costs, feel obliged to stick to selling prices which make their profits precarious. These conditions have caused a West Coast manufacturer to urge upon Government to mint new coins—2½¢, 7½¢, and 12½¢. The proponent argues the new coins would cut unit distribution costs and reduce marketing risks; provide a seasonably fixed coin for one-coin sales; provide greater monetary flexibility, convenience and economy for the customers and the business people: make greater economic stability. At least the idea is interesting.

California wine makers are fighting to have a tariff placed on French wines. They are affected by the same condition that is reported to have been felt by the perfume and cosmetics industries in this country since the franc was devalued. French perfume manufacturers naturally can export their wares to the United States at much lower prices. It is interesting to note that Congress and other official sources in Washington do not seem to be much stirred by the California wine makers protests. They think the wine makers can protect themselves in other ways than by lobbying for a tariff. The argument here is that the French need dollars, and that everything should be done to aid them in securing them. The prospects therefore are not bright that Congress will do anything about the French competition.

The American Consul at Colombo, Ceylon, recently transmitted the first report submitted by E. B. Creasy and Co., of that place, on trading in Papain, since 1945. It is stated the business has deteriorated considerably owing to practice of adulteration, which caused quantities of the material to be condemned by the Food and Drug Administration in New York. Legislation is to be passed by the Parliament in Ceylon to prevent ex-

portation of adulterated parcels.

From Haiti comes word that controls have been put upon the buying and selling and exporting of cocoa, vetiver, and guaiac wood, as of January 1, 1948. From the Dutch East Indies word came that there still is little revival in the production of such materials as citronella, lemon grass, patchouly, vetiver, spices, and essential oils. Java and Sumatra, the principal and richest sources of supply are practically cut off from foreign trade. The word that has trickled through indicates that present

cultivation is less than one-fourth of prewar volume. It is expected rehabilitation is over 6 years away.

Pepper production, which centered in Sumatra, apparently has been destroyed to the extent that 80 to 90 per cent. Production in the area must be written off. Almost no pepper culture remains in the island of Banka, and in West Borneo, both of which supplied great volumes.

French West Africa reports exports of gum arabic in 1947 totaled 7,052 tons, valued at 168,031 francs, 70 francs to the dollar. Almost all of this product went to France. This gum is gathered almost solely by nomadic shepherds. Egypt has begun the production of small quantities of spearmint commercially. It is used locally for culinary purposes. The Egyptian Government states production could be expanded rapidly if there is a demand for the oil. Chile has tried, but has not been successful in producing spearmint. Experiments were made with mentha piperita, and mentha citrata, and bergamot mint. Plantings of 40 acres were unsuccessful. Chile imports its spearmint oil to the volume of more than 3,000 kilograms, as well as 2,000 kilograms of menthol.

War Assets Administration has for sale 297 drums of pure lemon oil; 1,967 cases of vanilla; 79 cases maple flavoring tablets; 37,212 quarts and 132 gallons non-alcoholic orange flavor; 47,216 quarts non-alcoholic lemon flavor; and 437,469 pounds of eight varieties of spices—allspice, cinnamon, cloves, ginger, mace, marjoram, nutmeg, paprika. These may be bought at U. S. Army Depot, Schenectady, N. Y.; Naval Supply Depot, Oakland, Stockton, and Torrance, Calif.; Bayonne, N. J.; Newport, R. I.; Seattle, Wash.; Williamsburg, Va.; Hingham Warehouse, Hingham, Mass.; Naval Shipyard, Building 149–2, Boston; Commercial Warehouse, Little Rock, Ark.; Camden Warehouse, Baltimore; Great Northern Warehouse, Syracuse, N. Y.; and at Oak Ridge, Tenn.

Synthetic caffeine was produced in Germany at the rate of 5,000 kilograms per month. The process is described by the Department of Commerce Office of Technical Services as excellent and relatively inexpensive. The 11-page report describing the manufacture may be obtained from the Office of Technical Services, Department of Commerce, Washington 25, D. C. Office of International Trade, Department of Commerce, reports that syrups and flavors were among the exports that showed major increases last year. Major decreases occurred in citrus fruit juices. There also were substantial increases in the imports of black pepper. The greatest decreases in imports were listed as unground capsicum and vanilla beans. It also is recorded that there were important increases in the exports of tallow, and crude coconut oil; imports were substantially greater in castor beans, copra, and palm oil.

The Federal Trade Commission reports that no move has yet been made to issue the call for the conference of the cosmetics and toiletries industries to pass upon the fair trade practice rules which have been under consideration by the Commission for so many weary months. The rules have been ready for promulgation, but it is still considered possible that the Congressional Committee which has considered the problem may make

some pronouncement.

umer

New products and processes

High-Temperature Unit

E. I. DuPont de Nemours & Co. research men have developed a new type heat unit for supplying heat at temperature levels somewhere between that of direct fire and steam.

Although this heat transfer medium has been used in some large plants previously, engineers of the Bethlehem Foundry & Machine Co., with the cooperation of DuPont, have developed the unit known as the Beth-Tec Unit.

The heat transfer medium used is a mixture of salts. This mixture, melting at 290 deg. F., is liquid over a broad range of temperatures.

The following statement is made about the new unit: There is no appreciable vapor pressure, the degree of heating is easily controlled, the coefficient of heat transfer is good, the low temperature difference required is an advantage in the design of equipment to operate at high temperature and high pressure, and the possibility of toxic vapors is remote.

Magnesium Oxide Standard

The Toilet Goods Association, Inc., has issued the following standard for magnesium oxide: Color, must meet buyers' specification. Sample to be supplied by buyer; Solubility, Insoluble in water and ethanol; Identity, Meets test requirements (U.S.P.*); Loss on ignition, 6 per cent maximum (U.S.P.*); Free alkali and soluble salts, Not more than 1 ml. of N/10 sulphuric acid is required to neutralize the alkali when tested by the prescribed method. Not more than 5 mg. of residue when tested by the prescribed method (U.S.P.*); Acid insoluble substances, Meets test requirements (U.S.P.*); Carbonate, Meets test requirements (U.S.P.*); Calcium oxide, 1.5 per cent maximum (U.S.P.*); Iron, Meets test requirements (U.S.P.*); Magnesium oxide, 96 per cent minimum (U.S.P.*).

• U.S. Pharmacopoeia XIII, page 297.



Beth-Tec temperature unit

New Type Lanolin

Hychol is the brand name of a new type lanolin produced by the Robinson, Wagner Co., Inc. Tentative specifications of the product are: Specific gravity, 0.960; total cholesterol content, approximately 20 per cent; melting point, 43 to 45 deg. C.; free fatty acids, 0.5 to 0.8 per cent; ash, less than 0.02 per cent; water, less than 10 per cent.

Anti-Skinning Agent

Orbis Products Corp., New York, N.Y., has published results obtained on tests with Orbis Anti-Skinning Agent on a few of the worst skinning types of paint. The tests were made on outdoor enamel, semi-gloss paint and synthetic equipment eggshell enamel. The report is available upon request. Orbis Anti-Skinning Agent is moderately priced, according to the company, and is available in 25 and 50 pound cans and in 400 pound drums.

Synthetic Fatty Ester

A sulphonated synthetic fatty ester has been announced by E. F. Drew & Co., Inc., under the name Sulphonated Estol F. It is prepared by sulphonation of synthetic fatty esters, made available by a com-

bination of oil refining, distillation, and chemical reaction. It contains no mineral oil, or resinous, pectic, or proteinaceous impurities. It is said to be of good color and odor, and will not develop odor or color upon aging. The Drew company states that it does not foam excessively.

A typical analysis of Sulphonated Estol F is: Fat, 60 to 62 per cent; free fatty acid, 7 to 9 per cent; combined alkali (as oleic acid), 6 to 8 per cent; organic sulphur trioxide, 3.5 to 4.5 per cent; ash, 7 to 8 per cent; and moisture, 30 to 32 per cent.

Insecticide Emulsifier

A new, low-cost emulsifier for Chlordane has been developed by the Emulsol Corp., Chicago, Ill., known as Emcol H-65. Water miscible concentrates are easily made by mixing one part Chlordane with one part Emcol H-65, or by mixing 50 per cent Chlordane with 20 per cent Emcol H-65 and 30 per cent deodorized kerosene. Ten per cent or 2 per cent Chlordane water emulsions are quite stable from either type of concentrate. Technical literature is available upon request.

Water Soluble Oils

A number of chemical esters, of an oily character, and that dissolve clearly in water, are now available in commercial quantities.

Chemically, these products are polyoxyethylene oleates and laurates having a molecular weight above 800. They are non-ionic, non-toxic, light in color and fluid or grease-like in consistency. They dissolve clearly in water, alcohol, esters, hydrocarbons and vegetable oils. They all have high boiling points and exhibit surface-active properties.

They are sold under the names Polyethylene Glycol Mono Oleates (S1005) and (S1010), and Polyethylene Glycol Mono Laurate (S1019) by the Glycol Products Co., ation, atains ectic, It is odor, color apany

cent; comi to 8 oxide, 8 per 2 per

er for ed by b, Ill., r mismade e with nixing 20 per r cent r cent water from echnion re-

ers, of issolve ailable

ts are d lauweight c, nonnid or ey disol, esgetable poiling -active

Polyaurate ts Co.,

fumer



U.S.I. CHEMICAL NEWS

Billion Dollar Savings Seen With New Insecticide

Pyrenone-type Insecticides

To Cut Huge Food Losses

Total food production losses amounting to more than \$1,000,000,000 a year can be prevented and most of the present food shortages can be made up through large-scale use of a new pest control chemical now available in commercial quantities, it was revealed re-cently. The new insecticide, named Pyrenone (reg. trade mark), includes a wide group of insecticide concentrates obtained by combining either piperonyl cyclonene or piperonyl butoxide with pyrethrum.

Complete Safety

Pyrenone concentrates can be used with complete freedom where food is handled. They combine quick knockdown power and high mortality to insects with complete safety to a greater degree than has been considered possible heretofore. Tests have shown that these compounds have an amazing lack of toxicity to warm-blooded animals, even at dosage far above any which are ever used in the most rigid toxicological tests. Even sub-cutaneous injections of massive dosages have been tolerated without inconvenience.

Large Economic Gains

Gains of as much as 9 times the cost of the product, and frequently 25 times its cost have been observed during an analysis of the applications of Pyrenones to grain bins, growing foods, feeds of ani-MORE mals or even directly on animals.

Low-Cost, High-Phthalic Resin Is Now Available In Quantity

New Aroplaz 1379-2 Useful in Wide Range of Air-Dry and Low-Temperature Baking Finishes

In response to current demands for quantity-shipments of a low-cost, highphthalic content resin, U.S.I. is now offering its new Aroplaz 1379-2. Manufac-Tube Heats and Cools

turers will find this resin suited for use in many types of air-dry and low-temperature baking finishes. Aroplaz 1379-2 is available in quantity for prompt shipment.

despite its relatively high phthalic anhydride content (33 per cent).

Wide Use Range

As versatile as it is economical, Aroplaz 1379-2 is designed to provide top performance



HIGH TOT RESISTANCE — and high resistance to industrial wear-and-tear, too, can be obtained with finishes based on Aroplaz 1379-2. It's a versatile resin with a phthalic content that assures top performance in products ranging from toy enamels to machinery finishes.

in toy enamels, hardware and machinery finis the specific industrial metal primers, and farm implement enamels. It is also used for primers, surfacers and finish coats for wood, automotive chassis enamels, and as a general utility vehicle. The resin is suitable for most air dry or low-temperature baking finishes for

application by brush, spray, dip, or roller coat, Such finishes will air-dry overnight or

Tube Heats and Cools Air at the Same Time

The "vortex tube" which blows hot and cold at the same time is an enigma even to the scientists who developed it at the research laboratories of a prominent American con

In operation, compressed air is passed into nozzle tangentially mounted to the end of a mozare tangentary moment or the end of the pipe. As the stream of air enters the pipe, it strikes a small metal flange, or spiral, mounted inside of the pipe. This spiral starts the air whirling in a circular fashion within the pipe, and also tends to move the air through the pipe.

Air drawn from the axis of the other end of Air drawn from the axis of the other end of the pipe is cold, while air drawn from the outer edge of the "vortex tube" is hot. Believe it or not, there is no auxiliary heating or cooling equipment used.

Free Folder Available

For busy executives, U.S.I. has proposed a six-page folder entitled, "Products of U.S.I." which lists U.S.L's complete line of chemicals, solvents, and resins. A brief description of the product accompanies each listing. may be obtained by writing the editor of Chemical News, 60 E. 42nd St., N. Y. C.

THE AMERICAN HYDROCARBON SYNTHESIS: III

Hydrocarbon Synthesis Vast Improvement Over German Fischer-Tropsch Process

American engineering has made economically possible a new source of liquid fuels and chemicals. German skill must be credited with the inception and chemical development with the inception and chemical development of the synthesis of hydrocarbon fuels, but American technology has been necessary to enable the process to take a place in a competitive economy. The German plants were costly, complicated and prodigal in use of operating manpower, The photographer's art and pages of detailed description would be processary to present the paragrang of pining necessary to present the panorama of piping and equipment in such a plant. Let it suffice to point out that one plant with an installed capacity of 1500 barrels per day of total prod-uct had 11 gas separation units covering 2½ acres of land and in addition:

- Four parallel sets of hydrogen sulfide removal towers each 30 feet high by 35 feet
- Five parallel sets of organic sulphur removal towers 30 feet high and 12 feet in diameter.
- · One hundred Fischer-Tropsch reactors, each

8 x 10 by 15 feet in size.

- · Two absorption systems with seven towers.
- · Two stabilization systems.
- . Two distillation plants.

Intricate Synthesis Chamber

The synthesis chamber, the heart of the Fischer-Tropsch plant, was particularly intricate. A stationary catalyst was employed and the chamber had to be designed to bring the synthesis gas mixture of hydrogen and carbon monoxide in contact with this catalyst and to remove the high heat of reaction, about 7,000 B.T.U. per pound of product. Each chamber consisted of an array of metal fins. slightly more than a quarter inch apart, with cooling water tubes running transversely through them. Heat removal dictated the construction, but the construction was no help in the charging and removal of catalyst or in keeping down equipment cost. Even with this construction "hot spots" developed with tube or unit re-MORE placement resulting.

Methionine Claimed Antidote to Metal Poisoning in Plants

According to observations recorded in a recent scientific paper, plants receiving too much barium from the soil are poisoned, and their growth is halted. An antidote to this condition is claimed to be methionine, one of the amino acids vital to the growth and repair of animal tissue. Although plants are essentially mineral eaters, they can utilize methionine, an organic compound, when it is added to nutrient solutions, the author claims, nr. Methionine is now available in quantity at low cost.

CONTINUED

New Insecticide

U.S.I. pyrenone concentrates are sold only to insecticide manufacturers. Pyrenone-type insecticides will be made available for grain insect control by these manufacturers. Use directly in contact with foods is possible because of the lack of toxicity.

Pyrenones have been proved effective against flour beetles, the cadelle, the saw-



A METHOD FOR GRAIN PROTECTION - is the use of Pyrenones — U.S.I.'s safe, effective, and economical insecticide concentrates — to cut the billion dollar annual loss to America's food production industry caused by insect pests.

toothed grain borer and a wide variety of grain moths and mites. They can be used safely on plants and also against cheese in-sects, mites and skippers that attack hams and prepared meats, and against the choco-late moth - menace of the confectionery, bakery, and dried fruit industry. It is also deadly on common household insect pests.

New Research Program On Crystallization Begun

A new program of fundamental research on the process of crystallization, designed to aid the search for pure materials in the pharmaceutical, chemical, sugar, and salt industries, is now underway at a Western University. It is hoped, particularly, to obtain information on the control of crystal size and the growth of large single crystals.

CONTINUED

High-Phthalic Low-Cost Resin

bake hard in one hour at 200 deg. F.

Recommended for Colors

Aroplaz 1379-2 is completely satisfactory for use in most colors, but it is not recom-

SPECIFICATIONS . AROPLAZ 1379-2

Non-Volatie: 19-34/2
Solvent: Mineral Spirits
Viscosity (6.H.): V.Z (12.9-22.7 poises)
Acid Number of Non-Volatile: 6-10
Color (Gardner Sids, 1933): 14-16
Wi, per gal, at 25°C, (Solution): 7.7-7.8 lbs.
Wit, per gal, at 25°C, (Solution): 7.7-7.8 lbs.
Gil Content of Non-Volatile: 35°C by weight
P. A. Content of Non-Volatile: 35°C by weight
Resin Modification: Present

mended for whites. The resin rates excellent in color retention, and shows better than average flexibility and durability.

CONTINUED Hydrocarbon Synthesis

Moreover, the catalyst itself was not satisfactory. Lack of mechanical strength and need equent regeneration were shortcomings of all the early catalysts. An improved catalyst consisting of cobalt, thoria, magnesia, and kieselguhr was used beginning in 1938. This partially removed earlier troubles, but left much to be desired. Nothing had been done to reduce the cost which from the very be-ginning had been great.

There is nothing here to suggest ease and

simplicity in plant operation. Intricate units, and production from many units, do not reduce manpower, and the German process was no exception. There is, in addition, an apparent German aversion to instrumentation. Cheaper labor militated against both the development and use of instrumentation, and its lack contributed to process costs.

NEXT: How the new American Hydrocarbon Synthesis replaces the older process.

TECHNICAL DEVELOPMENTS

Further information regarding the manufacturers of these items may be obtained by writing U.S.I.

A new, fully-automatic paint machine which cleans, rustproofs, paints, and dries a variety of parts in record time has been put into operation. Up to 12,960 pieces pass through the device in an hour, the manufacturer states. (No. 295)

To replace natural quartz crystals of the type used in long-distance telephone circuits, a ne-type piezzelectric compound is now being offers which is said to differ markedly in chemic composition from quartz. (No. 29

To seal porous masonry, a new powder is affered that is said to mix with water to the consistency at thick paint and a applied by daubing on a porous surface. It is awailable in a range of colors.

(No. 297)

Plastic electromagnets are said to contain no morals yet to have a "life" comparable to per-annent stell mannets. They can be produced at an sentil the cost of conventional magnets, the constructions of these

A new-type dye is claimed to be useful in textile printing to praduce a turquaise blue which will stand up well under light and laundering. (No. 299)

Two new liquid adhesives, designed for cementing metals, thermosetting plastics, wood, tabric, or any combination of these, are said to exhibit high sheer and tensile strength, and to other exceptional resistance to water, gasoline, kerosine and assembled. (No. 300)

To measure the germicidal energy of a garmicidal lamp, a new instrument is now being offered which is claimed to be non-sensitive to natural or artificial illumination. (No. 301)

A new fireproof insulating material combines light weight with structural strength and has unusual fireproof characteristics and high-resistance to heat transmission, according to the manufacturer. (No. 302)

A new-type odorless pickling inhibitor, which is claimed to have an inhibiting action in both hydrochloric and sulphuric acids, is said to dis-solve cleanly, leaving no sludge, slime, or pro-cipitates. (No. 303)

Two new industrial, explosion-proof pH meters, claimed to eliminate the effect of serious fluctua-tions in voltage in most manufacturing plant circuits, are said to be lower-priced than other industrial meters. (No. 304)

5. NOUSTRIAL CHEMICALS,

60 EAST 42ND ST., NEW YORK 17, N. Y. (U.S.I.)



BRANCHES IN ALL PRINCIPAL CITIES

ALCOHOLS

Amyl Alcohol Butanol (Normal Butyl Alcohol) Fusel Oil-Refined

Ethanal (Ethyl Alcohol)

Specially Denatured—all regular and anhydrous formulas

Completely Denatured—all regular and anhydrous farmulas
Pure—190 proof, C. P. 96%
Absolute
*Supar Tyro Anti-freeze
*Solox proprietary Solvent

*ANSOLS

Ansol M Ansol PR

*Registered Trade Mark

ACETIC ESTERS

Amyl Acetate Butyl Acetate Ethyl Acetate

OXALIC ESTERS

Diethyl Oxalate

PHTHALIC ESTERS

Diamyl Phthalate Dibutyl Phthalate Diethyl Phthalate

OTHER ESTERS

*Diatol Diethyl Carbonate Ethyl Chloroformate Ethyl Formate

INTERMEDIATES

Acetoacetanilide Acetoacet-ortho-anisidide

Acetoacet-ortho-chloranilide

Acetoacet-ortho-foluidide Acetoacet-para-chloranilide

Alpha-acetylbutyrolactone

5-Chloro-2-pentanone 5-Diethylamino-2-pentanone

Ethyl Acetoacetate Ethyl Benzoylacetate Ethyl Alpha-Oxalpropionate

Ethyl Sodium-Oxaliscetate Methyl Cyclopropyl Ketone

ETHERS

Ethyl Ether
Ethyl Ether Absolute - A.C.S.

FEED CONCENTRATES

*Vacatone 40 Riboflavin Concentrates *Vacatone
*Curbay B-G *Curbay Special Liquid

*Curbay B-G ACETONE

Chemically Pure

Ester Gums—all types Congo Gums—raw, fused & esterified

*Aroplaz—alkyds and allied materials
*Arofene—pure phenolics
*Arochem—modified types
Natural Resins—all standard grades

OTHER PRODUCTS

Urethan

Ethylene Glycol

Nitrocellulose June Insecticide Materials Insectifuge Printed in U.S.A. Nitrocellulose Solutions DL-Methionine Insectifuge Materials







A compendium of significant news and views

Harold Hutchins says . . .

IT'S YOUR BUSINESS

What do you need to go into business today-and stay in? The first thing you need is an idea, or a service, or a product-something to sell. The better that "something" is, the better your chances of getting enough customers - and of keeping them satisfied. Second, you need money enough to get started and keep going until income catches up with outgo. Thirdly, of course, you need loyal employees who know their jobs, and a place to do business. This will have to be equipped with supplies, or materials, or machinery-the "tools" with which to work. Fourth comes good management. Maybe yours is the kind of business you can run by yourself. If not, you'll have to hire manager. If you fail here, competition will soon force you out of business. And fifth, almost from the day you start, you'll need to do enough business to meet your payroll, your rent, your taxes and all your other expenses. And these charges must be paid before there'll be anything left for you or your backers. Sixth and finally, you need to make a fair profit-not because you want one, but because that's the only way you can stay in business. Profits are the very mainspring of industry.

A BROAD TERM

Almost everybody can find something for themselves in that article on psychosomatic medicine in a recent issue of that big medical journal. And one could transfer from psychosomatic medicine to phychosomatic selling, or psychosomatic cosmetics, or what-have-you. The term is so broad, if you see what is

meant. Why pick on medicine? One example starts with Procrastination -a very human characteristic. Did you order the coal on time? Did you have your oil changed on time? The next heading was self-treatment. Now, who hasn't tried fixing things, himself? It could be the water pipe, a fountain pen or most anything. Sabotage of Treatment came next. So, you always had the prescription filled? And you always took the medicine, as directed? And did you always follow the directions for assembling the kid's trains, or did you try out your own intuition? And, then, we find Broken Appointments as evidence of psychosomatic medicine. Now, let's have that straightanybody reading this who never broke an appointment? Medical Shopping is also noted-and in free country, window-shopping for doctors, or surgeons, or beauty parlor technicians, or car repairers, is one thing we don't relinquish without a fight! So, why psychosomatic medicine? Just psychosomatic living, or perhaps dying, because there must be windowshopping for burial to justify all those advertisements you see on the subject. Limitation of Treatment is offered by the author of this leading article as a sign of psychosomatic medicine. This is a tough one to crack, because the patient stopping treatment here, may be one of those listed as shopping, in the earlier paragraph. See how tough this becomes? And on and on. But, this thing called psychosomatic medicine is here to stay for a long, long time. One medico, discussing a paper in the same issue of that medical journal, almost hits the nail on the head. He says, "The psychoneurotic person is a sensitive, intelligent being who lives inefficiently. If we, who wish to help him, would put ourselves in his place and handle his problems, as we would handle them if they were our own, we would then give him a more balanced judgment, which he needs." That's something! Put yourself in his place. It's done for the readers of these pages, and you readers feel it with each issue, we hope!

A GOOD IDEA

Years and years ago, it was a custom for books to appear with titles as Letters on Such and Such, or Lessons regarding This and That. The habit was an excellent one. The author took a personal interest in the subject and the person to whom the Lessons or Letters were directed developed a close association with the author. No hack writer could write those Lessons or Letters. We are for a revival of that habit, so that many more may learn from reading. Any takers?

A BAD PUN

Ho ho and a bottle of rum! What is coming into the soap field? It's new, and it's different, and it isn't soap, but it's promised to do all that soap does and to do it better, or so say the advance dopesters. In short, "No Soap," to make a bad pun.

WHAT'S COOKING?

We wonder what is brewing in the Health Department of that big city on the banks of the Hudson River? Some changes, and terrific ones impending or accomplished, particularly in the field of foods, drugs and cosmetics. Or should we say—dynamite?

ABSOLUTES

Direct from one of the oldest (A. D. 1812) and most reliable Houses in Grasse

BRUNO COURT S. A.

we offer you one quality—and one quality only—
of absolutes—the highest—in original containers.

ABSOLUTE

CARNATION

CASSIE

CASSIE FROM POMADE

CASTOREUM

CELERY

CISTUS LABDANUM

GENET

IMMORTELLE

JASMIN

JASMIN FROM POMADE

JONQUIL

LILY OF THE VALLEY

MIMOSA

MOSS DECOLORIZED

MOSS BENZOL

MOUSSE DE CHENE

MUGUET

NARCISSUS

ORANGE FLOWER

ORANGE FLOWER FROM POMADE

ORANGE FLOWER FROM WATER

RESEDA

ROSE

ROSE FROM POMADE

BALSAM TOLU DECOLORIZED

TUBEROSE FROM POMADE

VIOLET LEAVES

VIOLET WAVES DECOLORIZED

NAUGATUCK AROMATICS

DIVISION OF UNIT TORONTO . MONTH

Sole distriction of CA Property Control of Ca

FREEDOM OF CHOICE

What is your son going to be when he grows up? Nowhere else in the world would your boy be as free to choose almost any line of work he wants to do when he grows upand to fit himself by education and training for the life he wants. In America, there is no law to limit a lad's chances. Of equal importance to that freedom is the opportunity that lies ahead for your boy. Opportunity to climb to a top job-or to go into business for himself. In countries where business is run by the government, people must work where, when and how they are told. As an employee, your son will have the right to change his job any time he sees a chance for advancement. As an employer, he will have the opportunity to build as big a business as he is able. If he goes into business for himself, your boy will soon learn that opportunity is a two-way deal. Only as his workers and his customers benefit will his business be able to grow and prosper. He will also learn the importance of sound management-if his firm is going to earn the reasonable profits it must make in order to stay in business. Profits are the very backbone of American progress, and the best guarantee of opportunity for your son. So, whether your son works for someone else or for himself, business profits will always play a big part in his welfare.

"HELP WANTED" NOTE

The subject of inbreeding in business is important. Every so often, you read an advertisement where someone wants a new manager or assistant manager. And it will frequently say, "Our staff knows of this advertisement." Meaning that "our staff" knows that it needs new outside blood—no inbreeding there! Many a sermon could be written on the subject. But we have had our say and said enough for now.

SHINING EXAMPLE

Dr. Walter Bastedo is the example of a man with wonderful training in cosmetics, pharmacy and medicine. He is world famous, as well as being known to many readers of this publication. He has created a new specialty and has become an authority and, of course, an author. His book on Prescription Writing is in its Fifth Edition. Now, why don't all medical students take a course in pharmacy? Why don't medical schools give

credits for the years spent in pharmacy schools? Why is the B.S. in Pharmacy unacceptable by many medical schools, as an equivalent to a B.S.? Some schools of medicine decline to accept a sister school of pharmacy B.S., although the two are in the same university. How come? Some people enter college with medicine as their goal. It's a long way off—maybe 8 or 10 years.

NEW REGULATION

All narcotics shipped by manufacturers totaling 20 ounces or more must be sent by Railway Express, under the system of special check and signature from the hands of the shipper into the hands of the consignee, or armored truck, according to a recent ruling on the subject. Further, in both cases, the designation of the contents must not be included on the package.

URGE BETTER METHODS

The practices of broken-case sales, and daily deliveries to city retail druggists, have been cited by the Department of Commerce as two outstanding causes of why operating expenses are so high in the wholesale drug trade. In an 80-page report on the "Effective Use of Wholesale Drug Warehouses," the Department recommends that drug wholesalers educate the retailer in better buying methods, in order to simplify the wholesalers operation and tend to lessen his cost.

NO TAX IN 1950's?

Elimination of the excise tax on cosmetics and nearly all other products by early in the 1950's has been recommended by the Committee for Economic Development, in a report prepared by a special subcommittee assigned to study the overall tax problem confronting the country.

SMOKE A PIPE?

A recent survey by Crowell-Collier Publishing Company indicates that pipe smokers are not collectors, despite popular belief to the contrary. The largest single group (18.6 per cent) have 2 pipes; 18.4 per cent have 6 to 9 pipes, and 14.4 per cent have 3 of them. There were 5.5 per cent who owned 20 pipes or more. The \$5 to \$6 pipe was the most popular-priced.

PENICK FRAGRANCES

S. B. Penick & Co., New York, has supplied the permanent aromatics cabinet of the Oklahoma University School of Pharmacy with a number of substances, among which are aldehyde C-12, phenyl ethyl alcohol, oil of cloves, linalool from bois de rose, linalyl acetate from bois de rose, imitation maple flavor, imitation root beer flavor, imitation pineapple flavor, imitation banana flavor, imitation wild cherry flavor, imitation strawberry flavor, imitation coconut flavor, imitation coconut flavor, imitation raspberry flavor, imitation concord grape flavor, imitation vanilla flavor, and absolute resin benzoin.

CONSIDERATE BOSS

Workers at a Chicago sheet metal plant agree that their boss is the world's most considerate man. One of his more recent efforts in their behalf is the installation of a free refreshment stand, where workers may help themselves anytime they feel like it. The manufacturer believes the counter easily pays for itself in increased production and concludes: "If they keep stepping up production, as they have since we put in this refreshment stand, I'll give them anything they want."

MATCHED "MAKE-UP" FOR MEN

Consider matched make-up. Mostly, the thought means matched colors, but how about matched perfumes or fragrances in male toiletries? Start with yourself. You brush your teeth, which is fragrance No. 1. You may use a mouth rinse, which is fragrance No. 2. You wash your face with soap, which is fragrance No. 3. You apply a shave cream, which is fragrance No. 4. You apply an after-shave lotion, which is fragrance No. 5. Your hair dressing or tonic is fragrance No. 6, your talcum is No. 7, and your deodorant is perfumed with No. 8 fragrance. That's where we stop counting and begin to wonder how a man really smells with such a conglomeration of fragrances on his person every morning. There ought to be an answer to that one!

ARE YOU ALLERGIC?

Because some people show untoward reaction and allergy symptoms to even the finest perfume, Ar-Ex Chap Cream, made by Ar-Ex Cosmetics, Inc., specialists in hypoallergic cosmetics, is put up in two forms. There is a scented one for those who enjoy a delightful fragrance, and an unscented one for those who do not care to use a scent or are allergic to even small amounts of perfume.

Natural and
Natural and
Aromatic Materials

*

Special Creations



for PERFUMES

COSMETICS and

SOAPS

Special Representatives for Tombarel Freres, Grasse

Absolute Supreme Flower Essences

Jasmin Supreme, Orange Flower Supreme, Rose Supreme, etc.

Surfine Essential Oils

Lavender, Lavandin, Geranium Bourbon, Ylang Ylang, etc.

Resinoids

Benzoin, Mousse de Chene, Orris, Opoponox, etc.

Tombarel PRODUCTS CORPORATION
L. J. ZOLLINGER, PRESIDENT

L. J. ZOLLINGER, PRESIDENT

12 EAST 22nd STREET, NEW YORK 10

(HICAGO—A. C. DRURY & CO., INC.

219 EAST NORTH WATER STREET

The American Perfumer

276 March, 1948

COMPETITION REVIVED

For the first time since 1941, Modern Plastics will revive the annual plastics Competition, and this year will hold its Seventh Modern Plastics Competition, for the purpose of stimulating progress in plastics, and for improving the appreciation of plastics on the part of the public and industrial users. There are 20 Competition classifications and an award will be given in each group. Entries will be accepted until May 15, 1948, on any plastic product, plastic component, or new application in production and marketed since August 31, 1945. The address is 122 East 42nd St., N.Y.

NEW HOME

Cardinal Perfumes, Inc. and House of Croydon, Inc. have opened showrooms and sales offices at 366 Fifth Avenue, New York 1, N.Y., reports Samuel Schein, president. Its new, modern plant is now located at 241 Hudson St., Hackensack, N.J.

OCTACIDE 264

rasse

lose

ang,

mer

Van Dyk & Co., manufacturers of synthetic aromatic chemicals and perfumery raw materials, Belleville, N.J., offer a new insecticidal material which dissolves 50 per cent of its weight of DDT, DDD and chlordane; 20 per cent of benzene hexachloride; 20 per cent of cube resin (containing 33 per cent rotenone). The manufacturer invites interested persons to try a generous sample.

HAS NEW LINE

This year, for the first time, Mary Chess will offer Rose Geranium in a complete fragrance sequence for the bath, including Roman Bath Oil, Bath Mitts, Dusting Powder, Toilet Water, and Soap. It is planned to feature the line for Mother's Day, but beyond that, it is hoped by Mary Chess executives that the line will become one of their most popular scents and prove to be particularly desirable all during the spring and summer.

DECLARES DIVIDEND

American Potash and Chemical Co. has announced a dividend of \$71/2\epsilon\$ per share on Class A stock and Class B stock, payable on March 15, 1948 to holders of record on March 1, 1948.

EXPAND FACILITIES

George A. Breon & Co., which

maintains offices in Kansas City, Mo., recently opened its manufacturing facilities in Rensselaer, N.Y., for production of injectible medicines for physicians. These facilities, together with a new building in Myerstown, Pa., replace the plant formerly operated in Kansas City.

NEW SPRING SHADES

Harriet Hubbard Ayer has introduced two new Spring shades, "Just Pink" and "And Red," in lipsticks which are the first of a series of exciting new developments by this famous cosmetic house. The lipstick formula has been perfected to give even greater smoothness and top indelibility, with a delightful new fragrance. The new golden plaid cases, styled by a noted designer, are definitely chic at \$1.00. Matching compacts will follow.

STERLING DIVIDEND

The Board of Directors of Sterling Drug, Inc. has declared a regular quarterly dividend of 50¢ per share on the common stock, which was payable March 1st to stockholders of record February 18.

J. K. LILLY DIES

Josiah Kirby Lilly, eighty-six, chairman of the board of Eli Lilly and Co., pharmaceutical manufacturers, died last month at Methodist Hospital, in Indianapolis, Ind. He was a graduate of the 1882 class of the Philadelphia Pharmacy & Science, and was one of the country's outstanding patrons of Stephen Foster.

NEW WAREHOUSE

Construction has started on a new, modern brick single-story warehouse and office in Dallas, Texas, for Winthrop-Stearns, Inc., manufacturer of pharmaceutical preparations, with offices in New York, and producing plants in Rensselaer, N.Y., and Myerstown, Pa.

ADVANCE DATE

The Saint Louis Cosmetic Club has advanced the dates of its 1948 Show to September 7, 8, 9 and 10th, to be held in the Lennox House, St. Louis.

HEAVY SCHEDULE

Parfums D'Orsay is using an intensive newspaper campaign in 16 cities, to supplement and extend their regular spring magazine schedule. Morton Freund Advertising Agency handles the account.

PURELY PERSONAL

FRANK M. FOLSOM, executive vice president of the Radio Corporation of America, and board member of a number of other leading American corporations, has been elected a member of the board of directors of E. R. Squibb & Sons, succeeding the place left vacant by the resignation of Ferdinand W. Nitardy.

VIRGINIA WILLIAMS, widely known in the fields of beauty and fashion, has resigned from "Cue" Magazine to become an associate merchandise editor of *Charm*, the Magazine for the Business Girl, published by Street and Smith.

DANIEL S. DINSMOOR, consulting engineer with various manufacturing developments during the past 30 years, has been appointed director of development for American Potash & Chemical Corp.

GUNHILD SWANSON, Dermetics beauty consultant, was born and educated in Stockholm, which may account for the fact that she always travels with her skis and hunts out the nearest mountain, on week-ends, to keep herself fit and lovely for her travels throughout the drug and department store field. She is also familiar with South America, having made as many as 8 trips a year there for one of the other cosmetic houses she has represented, from time to time. Her young son is one of the best shots at Bordentown Academy.

MORRIS L. LEVINSON, president of Chen Yu, Inc., announces the appointment of Mona Manet, former cosmetic editor of American Druggist, as the publicity director of Chen Yu with offices at 37 West 57th Street, New York City.

ROY V. TITUS, son of Princess Gourielli (Helena Rubinstein) has been appointed general manager of the House of Gourielli, replacing Harris Whitaker, who has resigned to become general manager of Dana, as already reported. Mr. Titus is also executive vice president of Helena Rubinstein.

MARTIN F. SCHULTES of the Hewitt Soap Co. was recently gifted with a television set by fellow-members of the BIMS, at their Annual Banquet. Schultes was hospitalized at the time, but accepted it "in absentia."



ammonium thioglycolate
by STANTON

High specification ammonium thioglycolate is an
absolute imperative for successful cold permanent
twave solutions, and discriminating cosmetic
manufacturers turn to Stantons for their
material requirements.

Years of experience and specialization in ammonium
thioglycolate of extreme purity, maintains Stanton
Laboratories, Inc., as the foremost tonnage
producers of this fine organic chemical.

stanton laboratories, inc.
227 Krams Avenue, Philadelphia 27, Pa.
Mentery and Main Office)
2800 East 11th Street, Los Angeles, California
(Western Distributors)

The American Perfumer

LEONORE BUEHLER, formerly advertising and publicity director of Prince Matchabelli, has joined Jacqueline Cochran as director of advertising, sales promotion and publicity. She is currently working on an expansion program covering increased distribution and plans for advertising, sales promotion and publicity, which will be announced later.

DAVID F. WOLFE, longtime research director of The Oklahoma Publishing Co., has left that organization to devote full time to his interests with Wolfe and Associates, Inc., independent research organization with headquarters in Oklahoma City.

HOWARD M. WALLACK, sales manager of the Pipe and Smoking Accessories Division, has been elected a vice president of John Hudson Moore, Inc. Prior to joining his present company, he had been associated for many years with the House of Comoy, Inc.

THOMAS F. McMANUS has been appointed sales promotion manager of Parfums Ciro, Inc. of New York and Paris.

ROBERT J. SANDKE has been placed in charge of West Coast sales of the White Oil & Petroleum Division of L. Sonneborn Sons, Inc., New York, petroleum refiners and manufacturing chemists.

J. and the second of the secon

ner

OGILVIE SISTERS renew production of their Permanent Wave Shampoo in time for Easter-selling, after having discontinued it during the war.

YARDLEY'S announces a new Triple Compact which contains rouge, powder and lipstick—all in one beautiful package, selling at \$6.25.

WARNER HESTON, cosmetic buyer at Strawbridge & Clothier, is succeeded by ED. PURSEL. HES-TON takes over the buying of drugs.

JACK O'CONNOR, formerly with Chen Yu, has joined La Cross.

FRANK SHER resigns as cosmetic buyer at N. Snellenburg, of Philadelphia, and is succeeded by Miss E. ROBBINS of Cleland & Simpson.

FRANK J. HOGAN has resigned from Parfums Weil and joins GUERLAIN, to cover New England, New York, Pennsylvania and Ohio, excepting Metropolitan New York and Philadelphia. KAY BROWN, cosmetic buyer at Bloomingdales, recently spoke to members of the FORAGERS and told them some things they never knew until now.

STANLEY PARK, sales manager of Tangee, has resigned to become vice president in charge of sales of Payne Cutlery Co.

AL McKELVY is planning to do some interesting but unconventional advertising on his Cargo Men's Line, and Victoria, Ltd., during the next six months.

JOHN GABRIELSON of Allied Cosmetics has been hospitalized for some time.

PAULINE FOSTER, formerly with Ann Haviland, has joined Faberge.

MARTHA LORRAINE has a new "Sable Down" Lip Brush that sells for \$2.50, encased in a goldfinished case.

FRANK GILLISE, sales manager of Parker Herbex, is making a cross-country tour, in behalf of their new, fast-selling "Wave Saver."

MARY BAILEY, beauty editor of Fawcett, has completed a new study on "Personal Daintiness & Leg Make-up," which can be obtained gratis, by writing to her at 67 W. 44th St., New York.

BERNICE PECK, beauty editor of Mademoiselle, took a flying trip out to the West Coast last month to line up future Hollywood stories for her pages.

MARY JANE FULTON, beauty editor of Macfadden, is back on the job, after having been hospitalized in Gotham's Midtown Hospital.

MARY BROWN, formerly publicity director of Primrose House, has joined Harriet Hubbard Ayer, assisting MRS. ELINOR McVICKAR.

RALPH LEWIS, president of Harriet Hubbard Ayer, announces the re-opening of a new and larger salon in Paris.

MIRIAM GIBSON FRENCH, promotion director of Charm, and well known in the cosmetic field, recently resigned. RUTH ANN BOLWAY, associate promotion director, also left at the same time.

ELEANOR KUTCHINS of Dorothy Gray has probably returned from Hawaii by the time this is set in print. FRANK HEINEMANN has left the Richford Corp. to handle Lustre Creme in New York City.

LEHN & FINK has purchased Portrait Homewave.

MAJOR JOHN ZANFT has resigned from MGM to become president of HATTIE CARNEGIE Cosmetics.

PARK & TILFORD has taken over the line of Winx Eye Preparations.

SHULTON'S Early American Old Spice Men's Set of shaving mug and lotion is back.

PAULINE PARKER, publicity genius of Tek Hughes, recently joined company executives in entertaining the beauty press at a Park Lane luncheon, which should help sell many brushes, because it was such an enjoyable affair and the guests were spared from listening to speeches.

LEE SOHN leaves Personna to join Wesley Associates, one of the few agencies that specialize in advertising and merchandising of cosmetics.

HARRY SANSON is the new Midwest manager for Universal Laboratories, handling Mavis and Djer Kiss.

ANATOLE ROBBINS, West Coast cosmetic manufacturer, and his wife, are both back on the job, after recovering from an accident last Summer.

MARGARET BICKEL, publicity girl of Prince Matchabelli, won her bout with appendectomy.

KATHERINE OSSOW, formerly with Lentheric, is now travelling the West Coast for Harriet Hubbard Ayer.

DEL RUSSO, formerly with Prince Matchabelli, has become make-up artist for Helena Rubinstein. He is currently on a nationwide tour of appearances in department stores and other outlets.

WALTER JENKINS of Admiracion has been suffering from a severe attack of arthritis.

EUGENE COLEMAN has resigned from de Heriot and will devote his full time to De Kama, the original glandular creams, which company he recently purchased.

JEAN KING, beauty editor of Family Circle, is dabbling, on the side, in real estate.



To AMERICAN PERFUMERS
Who Want Success Through Quality

HENRI ROBERT Inc.

Distinctive American raw materials for perfumes . . . in the French tradition

39 WEST 60TH ST., NEW YORK 23, N. Y.

CABLE ADDRESS HENROBERT

TELEPHONE: CIRCLE 5-8521

CODES: A.B.C. 5TH & 6TH EDITION

Exclusive representative in the Western Hemisphere for:



LABORATOIRES SYNAROME Asnieres (Seine)

CREATORS OF THE FINEST AROMATIC SPECIALTIES
USED DURING THE PAST DECADE IN MANY OF THE
MOST SUCCESSFUL PERFUMES

AMBRAROME ANIMALIS CARDAMINE

PHENYLAL TUBERIDIS CIVETTAROME CUIR DE RUSSIE

CUIR 445 CUIR H.F. ALDECUIR LES FILS DE

JOSEPH ROBERT

91 RUE DE L'UNIVERSITÉ

PARIS VII

SPECIALISTS IN FLORAL PRODUCTS

FROM GRASSE

ABSOLUTES OF EXCEPTIONAL QUALITY MANU-FACTURED FROM THE PRINCIPLES DEVELOPED IN 1890 BY JOSEPH ROBERT

JASMIN ROSE ORANGER CASSIE

JONQUIL,
NARCISSUS
TUBEROSE
OAK MOSS
IRIS

HENRI L. ROBERT

CREATEUR DE PARFUMS

WILL PERSONALLY HELP YOU UTILIZE THESE THREE SOURCES OF OUTSTANDING RAW MATERIAL AND ENABLE YOU TO DEVELOP MODERN PERFUMES OF BEST QUALITY AND HIGHEST SALES APPEAL.

THE ROUND TABLE -

Head of Polak & Schwarz Inspects New Plant at Teterboro, N. J.

Adolph Schwarz, president of both N. V. Polak & Schwarz's Essencefabrieken, Zaandam, Holland and Polak & Schwarz, Inc., the American company, arrived in the United States on the 'Nieuw Amsterdam' early in January for a three months' stay in this country. After opening officially the new addition to offices and laboratories at 667 Washington St., New York City, Mr. Schwarz spent most of his time in conferences with the executives of the American corporation regarding the further expansion of the organization's activities throughout the United States and the build-



Adolph Schwarz

ing of the new plant at Teterboro, N.J. The parent company in Holland will celebrate its sixtieth anniversary early next year. The concern has grown into an organization doing a world wide business, with headquarters in Zaandam and Hilversum, Holland, and maintaining affiliated companies and independent manufacturing facilities in New York, Paris, London and Brussels; and also in Switzerland, Sweden, Norway and Italy. The latest additions are Polak & Schwarz in Buenos Aires and Rio de Janeiro. Mr. and Mrs. Schwarz, who crossed the At-

lantic in the company of their daughter Netty, have just announced the latter's engagement to R. Vanderpol, a medical student at Boston University, who plans to specialize in the psychiatric field. The young couple intends to make the USA their permanent home. The present trip is the second made by Mr. Schwarz since the end of the war. As a leading European businessman he feels that definite progress has been made in the economic situation and that the future holds much promise for the development of closer relations between Holland and the United States.

Joseph Kalish Joins Advanced Cosmetics

James H. McManus, president of Advanced Cosmetics, Inc., Long Island City, N.Y., has announced the appointment of Joseph Kalish as chief chemist and production manager of the Long Island plant.

American Institute of Chemists Changes Annual Meeting Date

The date of the annual meeting of the American Institute of Chemists has been changed from May 8 to May 7, Dr. Foster D. Snell, president, has announced.

The change was made to enable the New York Section of the American Chemical Society to meet jointly at the Institute's Silver Anniversary dinner at the Waldorf-Astoria Hotel. At that time, the Institute will present its gold medal to Dr. Charles Allen Thomas, president of the American Chemical Society.

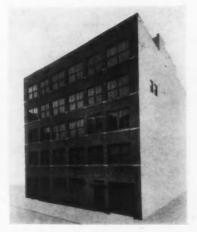
Charles Hofman Returns from Trip

Charles O. Hofman, vice-president and sales manager of Dodge & Olcott, Inc., New York, N.Y., recently returned to his New York office following a visit to the company's branches in St. Louis and Chicago.

Society of Cosmetic Chemists to Meet in May

Marcel J. Suter, chairman of the entertainment committee of the Society of Cosmetic Chemists, has announced that the next meeting of the society will be held May 19, at the Hotel Biltmore. The program for the meeting has not yet been announced.

President Dr. Walter Taylor calls attention to the fact that the society is meeting at the same time that the Toilet Goods Association is holding its convention. However, the Scientific Section of the association is meeting May 20, whereas the Society of Cosmetic Chemists' meeting will be May 19.



New headquarters have been established in a recently rebuilt, modern, five-story building at 250 West 18 St., New York, N.Y., by Firmenich & Co., successors to Chuit, Naef & Cie. The five thousand square feet of the top floor house the administrative offices. It has been partitioned largely with corrugated and plate glass, and glass brick sections appear among the structural elements. Laboratories for mixing and testing use the fourth floor and basement. Latest rubber tile floor coverings, sound-proofed offices, and cold cathode and fluorescent lighting are some of the newly available features used in designing the new quarters.

PERFUMERS

BASIC MATERIALS



OPOPOLYL B. A.

Opopolyl B.A. is based on a new and modern ingredient. It is truly an utility product for it has several outstanding uses, chiefly among which is its ability to round out, sweeten, and make the perfume more lasting.

If you are contemplating the production of a new line or improving one of your stable numbers we will gladly send sample of Opopolyl B.A. and make suggestions for its use.



BUSH AROMATICS

INCORPORATED

136 LIBERTY STREET
NEW YORK CITY

Cable address: ARROBUSH
Telephone: WOrth 2-6557

LABORATOIRE NOEL

GRASSE, A. M., FRANCE

ESTABLISHED 1933

DIRECTEUR: A. ROJDESTWENSKY

Highest Quality Natural and Synthetic Perfumery Materials for Perfume, Cosmetic and Soap Manufacturers

EEKX59EEKX59

LAVANDE R. A.

represents the result of the research by Dr. A. Rojdestwensky to prove that the real Lavande odor is not due to its ester content alone.

Lavande R.A. is used throughout the world as an economical perfume ingredient in all cosmetics, soaps and toilet waters. Its strength and true Lavande odor replaces the usual Oil of Lavender Flowers for many purposes.

EEKNESSEKNES

Samples and prices upon application.

Sole Distributors in the United States and Canada

BUSH AROMATICS, INC.

136 LIBERTY STREET

NEW YORK 7, N. Y.

Robert Desmond to be Succeeded by Paul Cooley

Robert Emmett Desmond, manager of the San Francisco branch of George Lueders & Co., New York. N.Y., has elected to retire. In 1913, Mr. Desmond entered the employ of the company and proceeded immediately to San Francisco. Shortly thereafter he was named assistant manager of the branch, and in 1930, upon the death of Felix Hoendorf, he became general manager for the Pacific Coast.

Mr. Desmond is succeeded as manager by Paul L. Cooley. Mr. Cooley has been with the company for seventeen years, the past few of which have been spent on the West Coast. Prior to that, his time was equally divided between the company headquarters and the branch in Chicago. Mr. Cooley is a nephew

of Mr. Killen.

James Doherty Becomes Koster Keunen Sales Manager

Koster Keunen Manufacturing Co., Sayville, L.I. has appointed lames W. Doherty as sales manager. For the past fourteen years, Mr. Doherty has been employed by the Sun Oil Co., as manager of its Industrial Products Division, in the New York district. He will handle both the beeswax and mineral wax sales for Koster Keunen.

Gerard J. Danco Becomes Trustee of Morristown Memorial Hospital

Gerard J. Danco, president of Gerard J. Danco, Inc., New York, N.Y., has been elected a trustee of the Morristown Memorial Hospital. Mr. Danco is also chairman of the Morristown Boy Scouts of America, president of the Morristown Civic Association and vice-chairman of the Morris County Community Chest.

Dow Exhibit at Packaging Show

"Chemistry is the Foundation of Good Packaging," is the theme of The Dow Chemical Company's exhibit at the forthcoming Packaging Show, Public Auditorium, Cleveland, April 26-30.

Estimate of Total Toilet Preparations Sales for 1947

The Toilet Goods Association has compiled its annual estimate of sales of perfumes, cosmetics and other toilet preparations, exclusive of toilet soap, for the year 1947.

These estimates are at retail prices of products actually sold at retail and do not include preparations incidentally used in connection with beauty and barber shop treatments for which no separate

retail charge is made.

The total estimated volume is \$682,100,000. This represents a decline from the record volume reached in 1946. A somewhat greater decline percentage-wise in the sale of taxable cosmetics was partially offset by an increase in the sales of cosmetics not subject to the 20 per cent retail excise tax. Sales of such non-taxable items as dentifrices and shaving creams showed a normal increase for the year 1947, and sales of certain other non-taxable items, notably shampoos, showed a very considerable in-

SALES IN MILLIONS OF DOLLARS		APPROXIMATE PERCENTAGE OF INCREASE OVER PREVIOUS YEAR
1938	366.1	4.1
1939	387.6	5.9
1940	400.0	3.3
1941	419.6	4.9
1942	439.6	4.8
1943	461.0	4.9
1944	546.3	18.3
1945	659.9	20.8
1946	699.6	6.0
1947	682.1	-2.6



Cecil Smith, president of Yardley & Co., and Mrs. Smith, photographed aboard the Santa Maria just before sailing on a business trip to Peru.

Lautier Fils in Own Building

Lautier Fils, Inc., has announced that it now occupies its own building for offices and laboratory at 321 Fifth Ave., New York, N.Y. The telephone is MUrray Hill 9-7980.

Carbide and Carbon Chemicals Opens Atlanta Office

Carbide and Carbon Chemicals Corp., New York, N.Y., has opened a sales office at 44 Broad St., N.W., Atlanta, Ga. Ray G. Kelso has been appointed manager for the Atlanta

American Institute of Chemists Presents Interesting Program

An interesting program was pre-sented at the February meeting of the American Institute of Chemists, held February 26, at the Downtown Athletic Club, New York, N.Y. The speakers were: Dr. Lloyd K. Riggs, on "Biochemistry in the Service of the Food Industry"; and Paul Grotts, on "Chemists' Contribution to the Comfort of Air Travel.' Lawrence Fleet was chairman of the meeting.

ADCAM Hear Dr. George Rieveschl, Jr.

The regular monthly meeting of the Allied Drug and Cosmetic Association of Michigan, held Feb. 25 at the Detroit Leland Hotel, heard an address by Dr. George Rieveschl, Jr., on "Anti-Allergic Drugs; The Development of Benadryl." The speaker traced the typical steps in the development of a new product.

Heyden Chemical Stock Listed on Exchange

Stock of the Heyden Chemical Corp., New York, N.Y., has been listed on the New York Stock Exchange. Application of the corporation for listing has been approved by the Board of Governors of the Exchange and by the Securities and Exchange Commission.

Scientific Section TGA to Meet

The Scientific Section of the Toilet Goods Assn. will hold its next meeting May 20 at the Waldorf-Astoria, New York City.

Florasynth Laboratories, Inc. Awards Bonus To All Employees

William Lakritz, president of Florasynth Laboratories, Inc., has announced that an additional compensation of a sum equal to ten per cent of their total 1947 salary and wages was paid to all employees of the company.



Shalvat

The exotic bouquet of the Orient — imparting a rare, lasting fragrance of the Far East. Ideal for fine perfumery, powders, etc.

Write today on your business letterhead for a generous free sample

Florasynth LABORATORIES, INC.

DALLAS 1 - DETROIT 2 - MEMPHIS 1 - NEW ORLEANS 13 - ST. LOUIS 2 - SAN BERNARDINO - SAN FRANCISCO 18
Figure 10 Late. (Cauchy) 1st. - Newton 2 Toronto - Viscour - Windows
Figure 10 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - Windows
Figure 11 Late. (Cauchy) 1st. - Newton 5 Toronto - Viscour - V

Richard Frascati Joins Jean Niel

Richard A. Frascati has recently joined the staff of Jean Niel, Inc., New York, N.Y. After completing his education at Cornell University, where he majored in organic chem-



Richard A. Frascati

istry, he enlisted in World War II. He served for more than four years, mostly with the United States Army Chemical Warfare Service. During this time, his duties as an officer in the C.W.S. included many research problems in the development of magnesium incendiary bombs, and later in synthetic rubber development. After serving in the United States Government Synthetic Rubber Laboratories in Akron, Ohio,

he was mustered out of the Army in 1946. Since that time he has been associated with several firms in the food and flavor industry. Mr. Frascati's hobby is public speaking and he is a director of one of the Dale Carnegie Institute courses.

Date Announced for Western Packaging Exposition

The Western Packaging Exposition will be held at the Civic Auditorium, San Francisco, Calif., August 10-13, 1948. Concurrently, and under the same roof, there will be held a conference on packaging, packing and shipping, at which major packaging problems will be discussed. The exposition will be under the management of Clapp & Poliak, Inc., Empire State Bldg., New York 1, N.Y.

Revue Alchimist Issues Spanish Edition

Revue Alchimist has announced that in addition to the English, French and Dutch language issues, a Spanish edition is being introduced. It is intended for Spain and the Spanish speaking countries of Latin America.

Andre Pissarro Appointed New Sales Manager at Chiris

Frederick E. Shoninger, President of Antoine Chiris, Inc., announces the appointment of André Pissarro as sales manager for the company. Mr. Pissarro was born in Paris,



Andre Pissarro

France and has been affiliated with the essential oil and aromatic chemical industries for many years. He has recently returned from an extensive tour of South America.

T. G. A. Convention To Be Held in May

The annual convention of the Toilet Goods Assn. will be held at the Waldorf-Astoria Hotel, May 18, 19 and 20.

IMPROVE THE QUALITY OF YOUR FLAVOR

BY USING NORTHWESTERN AMYL

BUTYRATE AND ETHYL BUTYRATE

WHEN THEY ARE CALLED FOR IN

YOUR FORMULAE, WE HAVE MANUFACTURED MORE THAN HALF OF THE

AMYL BUTYRATE AND ETHYL BUTYRATE

SOLD IN THIS COUNTRY FOR MANY YEARS

THE NORTHWESTERN CHEMICAL CO.

INCORPORATED 1882

WAUWATOSA, WISCONSIN

er-



UALITY based on unceasing research ...

PRODUCTION under the most exacting control ...

Every SYNTOMATIC Product a distinctive asset in the manufacture of your perfumes and cosmetic preparations.

AROMATICS

ESSENTIAL OILS

PERFUMERS MATERIALS



SYNTOMATIC CORPORATION

114 EAST 32nd STREET . NEW YORK 16, N. Y. . MURRAY HILL 3-7618

286 March, 1948

The American Perfumer

John Vandewater Joins Magnus, Mabee & Reynard

The most recent addition to the expanding sales force of Magnus, Mabee & Reynard, Inc., New York, N.Y., is John I. Vandewater. A graduate of Syracuse University, Mr.



on

the

rod-

the

mes

V

umer

John I. Vandewater

Vandewater was a Sergeant in the Combat Engineers and earned four battle stars for duty in the European and South Pacific theatres. Mr. Vandewater is currently centering his sales effort in the New York City area.

California Cosmetic Assn. Holds First Dinner Meeting of the Year

The California Cosmetic Association held its first dinner meeting of the year on February 13, at The Nikabob, Los Angeles, Calif., according to the association executive secretary, Lillian D. Nelson. The event of the evening was the installation of new officers.

Thomas Biallo Joins Danco Sales Staff

Gerard J. Danco, Inc., New York, N.Y., advises that Thomas M. Biallo has joined its sales staff and will call on the trade in the Metropolitan district. Mr. Biallo, who was born in Belgium, was an Officer Fighter Pilot in the R.A.F. from 1942 to 1945. He has a number of enemy planes to his credit, and has received the France & Germany British Star, the 1939-1945 Star, the British Defense Medal and the Dutch War Cross with Star. Mr. Biallo brings with him valuable experience gained in active perfume laboratory work.

A. L. van Ameringen to Speak at N.Y.U.

A. L. van Ameringen is to be the first guest speaker at the course offered by New York University under Samuel Klein. The address, given March 22, will contain some

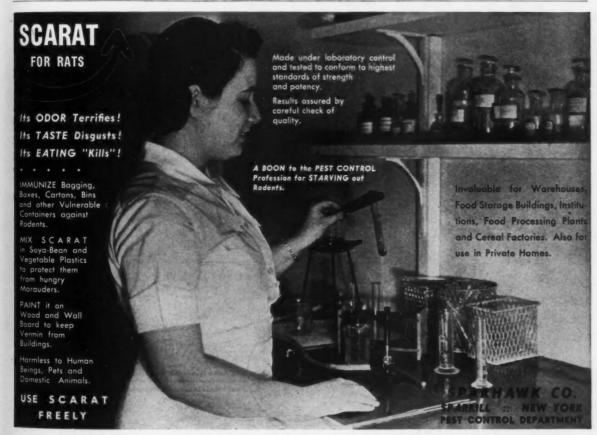
reminiscences on Mr. van Ameringen's long career in the perfume industry.

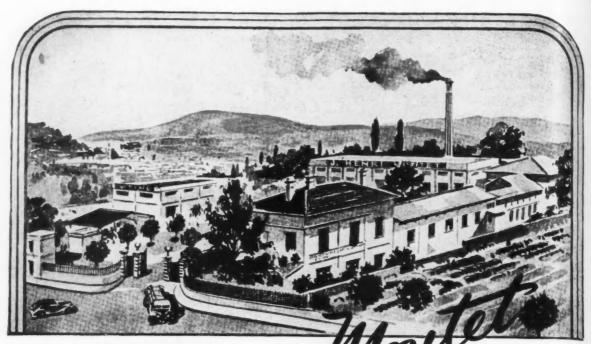
John Kreppel Joins George Lueders Veterans' Organization

John Kreppel became the fortieth member of the Veterans' Organization of George Lueders & Co., New York, N.Y., on February 10. Mr. Kreppel is assistant manager of the company's factory. A luncheon was tendered in his honor, at which time he was presented with a wrist watch, and the membership emblem in the form of a small gold button showing the company seal.

Priestley Becomes Director of Union Carbide & Carbon

Fred H. Haggerson, president of Union Carbide and Carbon Corp., New York, N.Y., has announced the election of William J. Priestley as a director of the corporation. Mr. Priestley has been with the organization since 1923, and has been a vice-president of the corporation in charge of Alloys and Metals Division since 1945.





WENT OUT OUT OF THE ST. CLAUDE OF THE ST. CLAUDE



FLOWER OILS · ESSENTIAL OILS & AROMATICS

for the

SOAP · PERFUMERY · COSMETIC & ALLIED TRADES

Laboratories, Distilleries & Head Offices: GRASSE · A. M. FRANCE



LiLi Perfumes Again Offered in the United States

The LiLi Perfumes, Bermuda, are now being redistributed on the United States market. The line now consists of five odors, Easter lily, oleander, jasmin, narcissus and eve. It is all made, packaged and sealed in Bermuda and it is presented in a newly designed package featuring the Bermuda Royal Blue color schemes. The U. S. distributor is: Neal Gordon, Gambine Co., 52 Vanderbilt Ave., New York 17, N.Y. As in the past, the line is going to be distributed on exclusive basis, to a selected class of stores.

Alex Friedman Joins Mock & Blum

Alex Friedman became a member of the well known legal firm of Mock & Blum, New York, N.Y., on February 1, 1948.

Dr. Ladd Fills Eben Speiden Vacancy as Senior Vice-President

Eben C. Speiden, senior vicepresident and works manager of the Isco Chemical Division, Innis, Speiden & Co., New York, N.Y., has retired from active duty as works manager at Niagara Falls, N.Y., it has been announced by W. H. Sheffield, president. He will continue to





Dr. E. T. Ladd Eben C. Speiden

be associated with company management.

Dr. E. T. Ladd, general superintendent and chief chemist of the Isco Chemical Division, has been appointed to fill the vacancy.

Connecticut Drug Stores Report Sales

Yearly sales of more than \$100,000 were reported by 52 of the 814 local chain and independent drug stores in the state of Connecticut, according to a recent field survey made by Dun & Bradstreet, Inc. Al-

most half of these stores do an annual business of \$50,000, and only about one-tenth have sales of less than \$25,000. Stores throughout the state represent a \$49,000,000 retail drug market.

N. Cay Matthieu Joins P. R. Dreyer, Inc.

Fred J. Beyer, executive vice president, P. R. Dreyer, Inc., 119 West 19th St., New York, N.Y., announces the appointment of N. Cay Matthieu as its representative in Ohio, Michigan and Western Pennsylvania. Mr. Matthieu is wellknown in the territories and has had many years of experience in the Essential oil business.

American Oil Chemists Plan Fall Meeting

The American Oil Chemists' Society will hold its Fall meeting in New York, N.Y., at the Pennsylvania Hotel, November 15, 16, 17 and 18. Present plans call for technical papers, group meetings and a banquet, followed by plant trips on the 18th. Dr. Foster D. Snell is chairman of the planning committee.

OIL ORRIS ROOT LIQUID ABSOLUTE ORRIS CONCRETE ORRIS OLEORESIN (Resinoid)

Experience demonstrates that none of the substitutes for Orris are wholly satisfactory in giving the characteristic Orris note. It is therefore fortunate that these well known Bush specialties are now readily available.

W. J. BUSH & CO., Inc.

ESSENTIAL OILS . . . AROMATIC CHEMICALS . . . NATURAL FLORAL PRODUCTS

11 EAST 38TH STREET, NEW YORK 16, N. Y.

LINDEN, N. J.

NATIONAL CITY, CAL.

LONDON

MITCHAM

WIDNES

ALRO

SEQUESTRENE A

a polyamino carboxylic acid salt

THE IDEAL SOAP ADDITIVE

Clarifies liquid soaps
inhibits turbidity in glass
enhances foam
retards rancidity
prevents lime soap formation
improves rinsing properties
inhibits deleterious effects of
copper, iron, manganese, nickel, etc.
stable in solution and at the boil



ALROSE CHEMICAL COMPANY

Manufacturing and Research Chemists
PROVIDENCE 1, R.I.

- WETTING AGENTS EMULSIFIERS PENETRANTS
 FOAMERS DISPERSANTS SOFTENERS
 DETERGENTS DEFOAMERS SEQUESTRANTS
 TEXTILE CHEMICALS INDUSTRIAL SPECIALTIES
 - QUARTERNARY AMMONIUM COMPOUNDS



Dr. Fritz Lipmann Receives Carl Neuberg Medal

Dr. Fritz Lipmann was presented with the Carl Neuberg Medal for 1948 at the March 4 meeting of the American Society of European Chemists and Pharmacists, held at the Master Institute, New York, N.Y.

Naarden Opens Branch Office in Stockholm, Sweden

N. V. Chemische Fabriek Naarden of Naarden (Holland) has opened a branch office in Stockholm under the style of "Nordiska A/B Naarden." H. Knopper, who has been for years looking after the interests of the N. V. Chemische Fabriek "Naarden" in the whole of Scandinavia, will act as managing director of the new establishment.

Julian W. Lyon Consolidates Business at New Location

Julian W. Lyon, broker and commission merchant in essential oils, crude drugs, spices, gums and allied products, moved on March 12 into larger offices at 7 Dey St., New York, N.Y. His previous telephone numbers will remain unchanged. At the same time the business of F. W. Mead & Co., which Mr. Lyon owned for a number of years, was combined with his business, and the accounts formerly held by Messrs. Mead are now being handled under the name of Mr. Lyon.

Obituary

Joseph Massibot

Joseph Massibot died suddenly January 8, while on a mission in Africa. He had been director of the Research Center, and director of Technical Services of Agriculture to the Colonies of France.

Michael O'Shea

Michael O'Shea, administrative vice-president of Merck & Co., Rahway, N.J., died February 5, at the age of 49.

Mr. O'Shea was a Marine Corps pilot in World War I and a lieutenant colonel in the Signal Corps in World War II. After World War II, Mr. O'Shea was president of Rosemarie de Paris, Inc., until last September when he joined Merck & Co.

Mrs. Helen Herchelroth

Mrs. Helen Herchelroth, wife of J. Hilary Herchelroth the aromatic chemical and essential oil dealer, died February 21 following a prolonged illness of over a year. Mrs.



Mrs. Herchelroth

Herchelroth was born in New York City November 22, 1903 and was married June 29, 1929. With her husband she was associated in developing the Oracle Laboratories which manufactures cosmetics, as well as his other business interests. All told this association continued for over fifteen years. Mrs. Herchelroth was beloved by the employees of the business and by a wide circle of friends for her simple charm and sincerity.

BENJ. FRENCH, INC.

Essential Oils

Aromatic Chemicals

DESCOLLONGES PRODUCTS

LILAC FLEURS.B LILY OF THE VALLEY NO. 2702

Real contributions to the making of fine perfumes. Two outstanding floral odors, duplicating to an amazing degree the true odor of the flower.

160 FIFTH AVENUE

NEW YORK, 10, NEW YORK



If it were purely a matter of chemistry, all women would look the same, because nature compounds them of the same elements. But how vastly different we know them to be in facial and body beauty!

In the same way, the preparation of cosmetics requires not only a knowledge of chemistry but experience in cosmetic formulation and manufacture that will give your product maximum appeal and assure repeat sales. The private label customers we have served in our more than 40 years experience have learned that our approach to their problems offers them the greatest advantages.

We will welcome the opportunity to demonstrate how much more than chemistry we make available to you.

KLINKER

MANUFACTURING COMPANY
9210 BUCKEYE ROAD • CLEVELAND 4, OHIO
Manufacturers of Private Label Cosmetics

Natural and Aromatic Raw Materials Essential Oils

for

Perfumery .

Cosmetics •

Soap

LAUTIER FILS

INCORPORATED

154-158 West 18th Street New York, N. Y.

Grasse · Paris · London · Beyrouth

Manufacturers of Quality Raw Materials For Perfumery For Over 100 Years

MARKET REPORT

FLUCTUATIONS in essential oils and aromatic chemicals were confined within narrow limits over the past month notwithstanding the setback in securities, several speculative commodities and the devaluation in the French franc.

FRENCH OILS

Some of the French oils reflected the devaluation of the franc but the drop in prices was only moderate. For a time, following the drop in exchange, exporters in France had not offered any oils for shipment. Later, however, offerings were resumed at quotations below the pre-devaluation figures in dollars but not in francs. This was explained by the fact that prices had actually been increased in France to partly offset the reduction in exchange. Because of economic conditions trade factors are of the opinion that most French oils will be further increased in price in the home market thus eventually wiping out the difference in exchange.

Observers here did not feel too highly concerned over the developments in securities and commodities since the wide fluctuations appeared to be largely speculative in character. Already having passed through a period of declining prices for more than a year the essential oil and aromatic chemical market based strictly on the old law of supply and demand is believed to be in a decidedly favorable position.

A steadier tone developed in lemongrass oil for shipment and spot prices registered moderate gains. New crop lemongrass cannot be expected before May, and because of heavy purchases for the account of Great Britain, only small quantities remain unsold in the primary center. Normal production of lemongrass ranges from 450 to 500 tons but it is still too early to obtain a clear picture regarding the coming crop.

Bois de rose showed signs of strengthening on reports to the effect that a minimum shipping price of \$3 per pound would be established in Brazil by March 1. There was a reasonably good call for the article and some dealers were inclined to hold for slightly better prices learing that they would be unable to replace stocks at former low levels. Ocotea cymbarum remained fairly steady although the demand was reported as quiet.

The action of Turkish geranium oil proved rather disappointing since the easier trend in prices failed to bring about any improvement in demand. Exports of ylang ylang from Madagascar and the Comoro Islands amounted to 16,700 kilograms in the first nine months of 1947. The receipts had a value of 23,020,000 francs.

For the first time in many months spearmint showed signs of easing. Advices from the country indicated a greater willingness on the part of some dealers to reduce stocks. This was believed to be due in some measure to the fact that the new crop period is gradually approaching and stocks in dealers hands are larger than earlier estimates indicated. Peppermint remained quite firm, however, with a fairly steady demand being reported for the account of domestic consumers.

Coumarin prices were advanced 25 cents per pound by a leading producer March 1. Another maker advanced its price by the same amount on February 1, and a third producer reports that because of accumulated increased costs, it may find it necessary to adjust its selling schedules in not a great while. A general advance would mark the first change in prices since July 1942. Annual production of synthetic coumarin is in excess of 350,000 pounds. The new and higher schedule that was put into effect March 1 by a single producer established its price for 25-pound lots at \$3 per pound with smaller quantities proportionately higher.

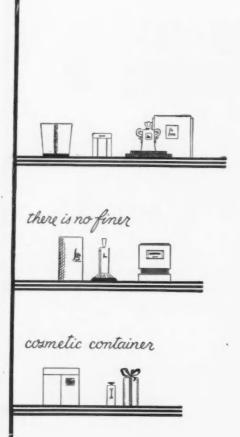
For a time, shortly after the end of the war, coumarin was in an exceedingly tight supply position and occasional odd lots in the resale market were commanding rather substantial premiums over makers' schedules. The current supply position is reported as comfortable however with producers meeting deliveries to the domestic consuming trade quite promptly.

The break in securities and certain speculative commodities was reflected in such items as red oil, stearic acid and metallic stearates. The latter group was reduced 3 cents per pound.

FIRMER TONE IN MENTHOL

Following a series of slight reductions a slightly firmer tone developed in menthol although some trade factors believed that the slight recovery would only prove temporary. The firmer tone developed on reports from Brazil to the effect that exporters had no intention of changing their ideas as to price because of the drop in the stock market and other commodities, and that the Government in turn would reject any export license applications at a price below the equivalent of \$8.75 per pound, duty paid. Private advices concerning crop conditions in Brazil seem to vary considerably. Some state that new menthol production will not exceed 120 tons. Others state that it will exceed 225 tons. With an estimated carryover of about 150 tons, new production of 250 tons would make the total sufficient to take care of a full year's requirements in the United States.

The action of the glycerin market proved satisfactory in the face of the wide fluctuations in closely related articles. February production of refined has all been sold, and producers are now taking orders for March delivery.



than a Karl Voss box.

Karl Voss Corporation

